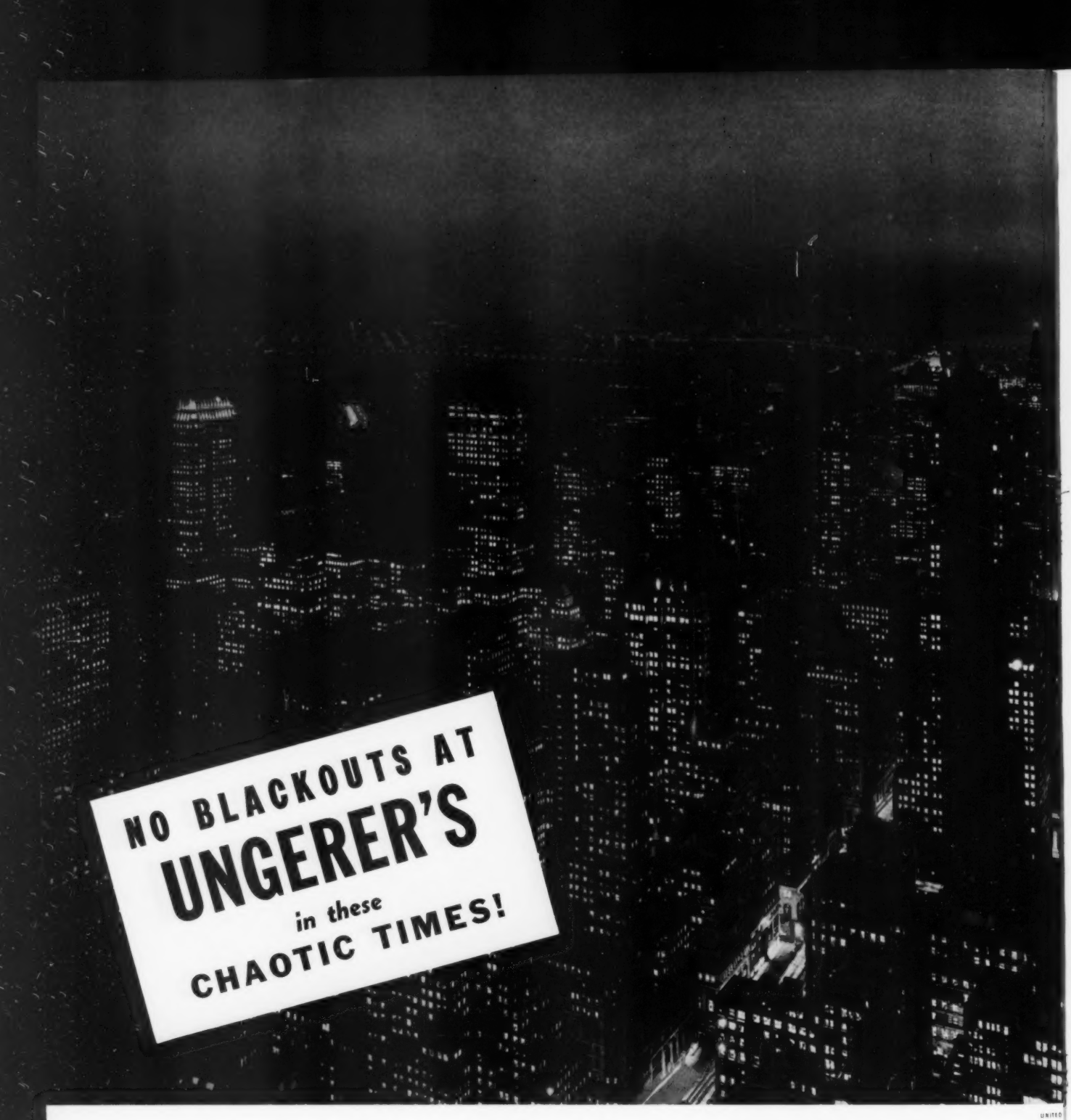
JAN 1940

The American Perfumer and ESSENTIAL OIL REVIEW

COSMETICS · SOAPS · FLAVORS



IT'S BUSINESS AS USUAL AT UNGERER'S.

We have no blackout in resourcefulness. These trying times test the laboratory technician and the business man to the very limit. Our resourcefulness is lifting many burdens from the minds of our customers.

We have no blackout in experience. Our long continuous record of helpfulness through dark day and fair is a particular boon to our customers at this time. There is no substitute for experience.

We have no blackout in essential raw materials. Our business is to supply you with the correct raw materials which fill your needs and solve your problems so "There are no blackouts at Ungerer's" and "It's business as usual." Consult us on your perfumery problems.

UNGERER & CO.

13-15 WEST 20th STREET

NEW YORK

Published by
ROBBINS PUBLISHING COMPANY, INC.
9 E. 38th St.
New York, N. Y.

J. H. MOORE
President and Treasurer

HARLAND J. WRIGHT
Vice-President and Publisher

MERTON C. ROBBINS, JR.
Secretary

R. F. ROGERS,
Representative
New York
9 E. 38th St.

H. J. HOOLE,
Representative
Chicago, Ill.
Peoples Gas Bldg.

BUSINESS PUBLICATIONS BUREAU,
Representative
San Francisco, Cal.
Long Beach, Cal.

M. R. TRAGERMAN
Art Director

Publication Offices: 56th and Chestnut Streets, Philadelphia, Pa., U. S. A. Editorial and Executive Offices: 9 East 38th Street, New York. Telephone: CAledonia 5-9770; Cables: Robinpub, New York; Codes ABC 5th Edition. Subscription rates payable in advance: United States $3.00 a year; Canada $3.00 a year; Foreign $4.00 a year. Single copies 30c. Volume Forty: Number One.

the American Perfumer
and ESSENTIAL OIL REVIEW

COSMETICS · SOAPS · FLAVORS

EST. 1906

WILLIAM LAMBERT
Editor

MAISON G. DE NAVARRE, PH.C., B.S.
Technical Editor

CONTENTS · JANUARY 1940

CURRENT COMMENT

AMERICAN PERFUMES

Certain recent successes of American perfumes are causing many in the industry to pause and do some quiet but deep contemplative thinking.

There seems to be a drift towards the homely florals of our own wonderful country and the truly beautiful inspirations to be obtained from the typical American family of flowers.

The significance of this trend lies in the fact that it demonstrates the skill and creative abilities of the American perfumers who are producing products that register success.

Further, it is found that quality perfumes of American origin are accepted by the public.

NEW SESSION

As Congress re-assembles the entire country turns its eyes toward Washington—in spite of the war distractions.

What will this session mean to business?

The past few months registered activity and optimism. In contrast with the timidity which has dominated for a prolonged period, it is refreshing to observe the positive progressive attitude of the main body of manufacturers.

It is true of all lines of business.

Will the law makers please take note. Nothing will take the load off the national treasury as will an increased volume of business.

It will obviate new taxes—close the gap between national outgo and national income—encourage investment of private funds now idle.

And it will decrease unemployment, thus reducing vast expenditures of public funds.

But most of all, a continuance of upward business volume curve will restore the national morale, of which there is vital need.

Nine out of ten manufacturers have voiced the hope that Congress in its wisdom will examine proposed measures with a weather eye toward their effect upon business, and relegate the monkey-wrenches to the boiler room.

Even if it is an election year, the march of recovery should be in the fore-front. No matter what the party, or politics, let us to some extent be patriots.

1940 COMPLIANCE

January ushers in the new merchandising era created by the Food, Drug and Cosmetic Act.

The past several months manufacturers have been rounding up their final compliance activities. To the credit of the industry generally, the desire to meet requirements in fair fashion has been definitely manifested.

Those who do so grudgingly may be present but all sincerely want the industry to be in line with the Act in which it is conceded there is much that will ultimately benefit the industry.

ORIGINAL RESEARCH

In one representative house—among the first ten such in volume and importance—our editorial eye espied a made-to-order file, properly indexed and cross indexed, which contained a copy of each of the seven special Bulletins issued by the Research Service of *The American Perfumer*.

"It's worth money to us" was the comment. Not being mercenary-minded at the time, we didn't inquire "how much."

These Bulletins are contributed to the industry by this publication—gratis to our subscribers. We got some kick out of the above incident.

And, a revised edition of Bulletin on *Wetting Agents* is just issued, supplementing the one brought out about 18 months ago.

NEW WINE IN OLD BOTTLES!

Dislocation of markets—due to war conditions affecting production and transportation—is bound to create acute situations. Sources of supply were well organized over the years. Supply houses in this market each year have been perfecting their methods, improving their plants and connections, and developing key products.

Yet—shortage of certain basic materials is bound to occur at times.

This taxes the ingenuity of technical people, and furnishes incentives to find new uses for certain obtainable materials, to fill vital needs.

We invite close inspection of our technical columns during this period.

HOLIDAY SALES

With department stores reporting holiday sales five per cent or more ahead of last year and with drug store sales up sharply, the toiletries industries have closed the year with a flourish.

Personal items as Christmas gifts registered a powerful sales appeal.

The ingenuity displayed by most manufacturers in attractively packaging popular items — as well as thoughtfully and cleverly grouping them—is one factor in stimulating sales.

The gift departments and the gift counters in all suitable types of stores are valuable "spots" for this industry's products, particularly when intelligently merchandised. H.J.W.

Parmantheme

A new and truly remarkable synthetic version of the Parma-natural Violet flower note.

The most recent of the Chuit, Naef successes, PARMANTHEME represents the work of a number of years of scientific research into the various natural bodies possessing violet odors.

PARMANTHEME embraces all of the most desirable requirements of the ideal Violet basic character. It is non-irritating (*contains no methyl heptine carbonate*), very fresh and tremendously powerful.

It is characteristic of PARMANTHEME that it can be used basically in any type toilet preparation, being particularly effective in lipsticks, creams and perfume extracts.

Additional Data and Quotations on Request

Firmenich + Co., Inc.

135 FIFTH AVE., NEW YORK

CHICAGO OFFICE: 844 NORTH RUSH STREET

THE RISE OF THE HOUSE OF WESTMORE

Sales strategy behind an effective consumer campaign which promises Hollywood glamour . . . How a half million dollar business achieved its rapid rise

by MURIEL C. HENRY

TO enable women in every-day life to achieve some of the glamour of women of the screen through the use of color filtering cosmetics summarizes the reasons why of the House of Westmore. Judging by the half million dollars in sales in a year's time, it may be assumed that the four Westmore* brothers, all of whom are associated with movie studios, have convinced American women that the illusion of beauty may be created by anyone who utilizes the proper methods of make-up.

Seven products, cleansing cream, foundation cream, powder, dry rouge, cream rouge, eye shadow and lipstick, comprise the Westmore line which is distributed nationally through variety stores and to some extent through drug and department stores.

Not a small part of the success of the Westmore line may be traced to the "Make-up Guide," retailing at 25 cents in drug, department and variety stores where Westmore products are sold. Issued in August of this past year as the first book of its kind, approximately 50,000 copies were sold in two and one-half months. The guide analyzes the seven basic types of faces, instructs the reader how to determine in which classification she belongs, lists "do's" and "don't's" for each type, and gives general advice on the use of cosmetics.

How the Westmores launched themselves into the business of supplying cosmetics to women generally as well as serving the movie stars presents an interesting story. They began five years ago by opening a beauty salon in Hollywood because screen actresses sought cosmetic make-up assistance for their daily lives similar to that which they received during the filming of pictures.

WESTMORES ENTER MASS PRICE FIELD

House of Westmore as it exists today grew out of an earlier firm which had been formed to place the line of cosmetics in national distribution. The present company was organized when it was decided to enter the mass price field, and to extend distribution through taking advantage of the movie-going public's knowledge of the Westmores and their ex-

*Perc Westmore is shown above with Bette Davis, Warner Brothers' star.

perience in the studios. Sales were stimulated immediately by the introduction of packages at two prices, 25 and 50 cents, for the company's seven products. The color theme in green and gold, with the Westmore crest, remained the same as that used for the higher priced items originally placed on the market.

National magazine advertising, local newspaper advertising, window displays, counter displays, demonstrations, theater tie-ups—all these promotional methods have been used during the past year, in fact, since October, 1938, when the present national distribution campaign was launched.

ADVERTISING IN FAN MAGAZINES

Twenty-three national magazines, including *True Story*, *Photoplay*, *Picture Play*, *Screen Guide*, *Glamour*, *Modern* magazines, two *Screenland* publications, five *Macfadden* and six *Fawcett* publications, have obtained the bulk of the advertising. Plans are underway now to extend the magazine advertising to other national magazines read by women.

Local newspaper advertising has been divided into two types—mostly institutional spot copy, and some cooperative tie-ups with department stores. Copy usually is placed after the introduction of the Westmore line in local outlets—50 to 75 accounts in an area being considered sufficient to justify spot advertising. All consumer copy is prepared by J. M. Mathes, Inc., for the House of Westmore of California, which organization handles all advertising for the House of Westmore products.

MOVIE STARS' PICTURES USED

Pictures of the motion picture stars and the Westmores are used for the window displays, counter displays and theater tie-ups. Inasmuch as each Westmore is affiliated with a different studio, opportunities in local theaters for the use of movie stars' photographs arise often and the display frequently tells at what local stores Westmore cosmetics may be purchased. Current promotion for the firm's products includes tie-ups with "Gone With the Wind" for which Mont Westmore did the make-up.

DEMONSTRATIONS MADE EXTENSIVELY

Demonstrations of Westmore cosmetics form a very important part of the company's promotional activities. Between 25 and 30 demonstrators rotate over the key outlets in all the territories served, staying two weeks usually in one place. Not only do they demonstrate the line itself but also the Westmore method of applying make-up.

In addition to the demonstrators, a supervisor follows the salesmen to train clerks in stores where Westmore products are for sale. At the present time employees who contact retailers operate out of one of two offices, either New York or Hollywood.

But what of the basic ideas which produced the Westmore products? The four brothers—Perc, Wally, Buddy and Mont—out of their experiences

in make-up for motion pictures, especially Technicolor, evolved their color filtering cosmetics to create natural skin tones. Their ideas are based on that of filtering out harsh reflecting tones in foundation cream, rouge and powder. The colors, red, green, blue, yellow and also white, are used to create natural skin tones and the combination of colors prevents a masky appearance and helps to eliminate reflection of these colors of light. Because the average woman in daily life is not confronted with all the problems of lighting under which Hollywood stars work, the Westmores found it possible to produce cosmetics for general distribution, which could be used by the wearer for street or evening.

In addition to their enterprise in the commercial cosmetic industry, the Westmores are engaged in make-up problems at the movie studios. Perc is head make-up artist at Warner Brothers, Wally is make-up director for Paramount Studios, Buddy is beauty expert for 20th Century-Fox, and Mont is make-up director for Selznick International. Ern, Perc's twin brother, has just returned from England, where he formerly was make-up director for Paramount, England. Prior to that, he spent 12 years as make-up director for RKO and 20th Century-Fox.

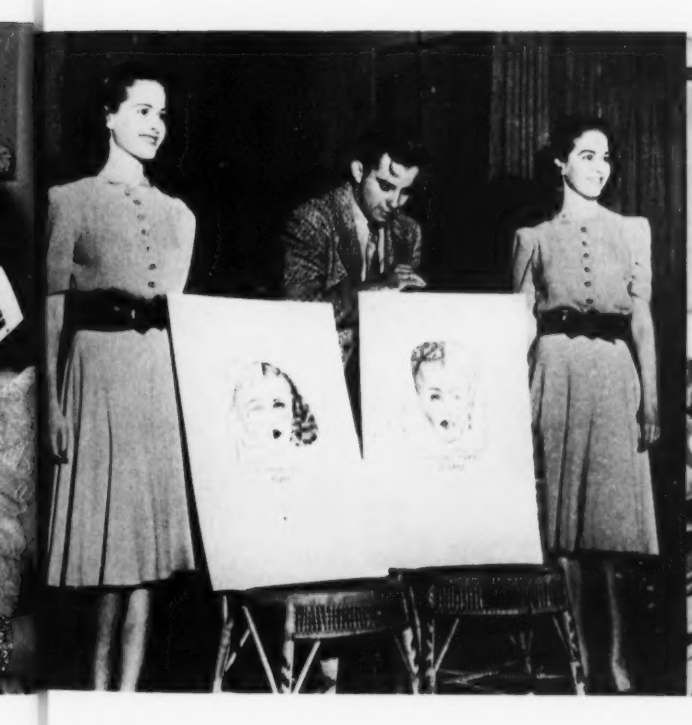
FATHER ALSO A MAKE-UP ARTIST

Not only do the brothers bring an accumulation of experience to their daily problems in the cosmetic field but they have a family inheritance in make-up as their father, George Westmore, served as make-up director at the old United Studios. It is his family crest which is used as part of the green and gold package design for the Westmore line.

Perc Westmore is president of the House of Westmore. Oscar H. Alexander, who came out of Wall Street into the cosmetic field, is vice-president. S. M. Goldman is general sales manager.

OPENING OF NEW TERRITORIES

The sales and office personnel numbers about 40, but it is soon to be augmented [*Continued on p. 112*]



Wally Westmore, make-up director for Paramount Studios, confers with Madeliene Carroll in the left-hand picture. Above, Bud Westmore of 20th Century-Fox is shown with the Brewster sisters. On the right, Olivia de Havilland, cast as Melanie in the Selznick Technicolor production, "Gone with the Wind", consults with Mont Westmore, head of the make-up department. The seven basic types of faces as illustrated are: oval, round, square, oblong, triangle, inverted triangle, diamond

GUM BENZOIN IN PERFUMERY

Differences between Sumatra and Siam gum . . . Where and how it is produced . . . What is known about the chemical constitution of the gum.

by VICTOR FOURMAN, PH.D.*

Benzoin Sumatra "blocks" and benzoin Sumatra "almonds" have storax-like odo

THE wide use of gum benzoin in pharmacy, perfumery, and in the manufacture of incense would lead one to assume that the chemistry of this gum is well established. This is not the case even though gum benzoin Siam as well as the Sumatra variety are described in the U. S. Pharmacopoeia and in the pharmacopoeias of other nations. Of the natural products in the perfume field the most difficult to investigate chemically and to standardize are the gums, resins, and balsams. This explains to a great extent why our knowledge of the chemistry of gum benzoin is so limited.

PRINCIPAL COMMERCIAL VARIETIES

The principal commercial varieties are benzoin Siam and benzoin Sumatra, although the Palembang, Padang and Penang varieties are also found in commerce and occasionally used in the manufacture of incense. The Siam gum is obtained from the tree, *Styrax tonkinensis,* and other species of *Styrax* whereas the Sumatra gum is derived from *Styrax Benzoin Dryander.*

During the normal growth of the trees no gum is produced so that the formation and exudation of the gum may be considered a pathological process since it takes place only after the infliction of a cut with an axe. The "wound" must be deep enough to injure the cambium layer beneath the bark of the tree. After the incision is made, the gum is allowed to run out and to harden, generally for about three months and it is then collected.

HOW GUM REACHES THE MARKET

It comes into the market in "tears" and in "masses." Gum benzoin Siam is characterized by its vanilla-like odor and its freedom from cinnamic acid. The Siam gum is collected principally in the Siamese provinces of Luang and Probang. It is usually sorted into three classes: 1° Sua—large clean lumps; 2° Smaller lumps which are not clean: 3° Musi—soiled, fine small pieces.

Sumatra gum benzoin is obtained on the island of Sumatra in the Dutch East Indies and is almost always exported in blocks or in "almonds" rather than in "tears." The better qualities of this variety have a fine storax-like odor which is quite distinct from the vanilla-like odor of Siam benzoin. When a little of the powdered Sumatra gum is boiled with a slightly acidified solution of potassium permanganate, the odor of benzaldehyde is easily detected. This results from the oxidation of the cinnamic acid in the gum to the aldehyde, oxidation taking place at the double bond:

$$C_6H_5.CH=CH.COOH \xrightarrow{O} C_6H_5.CHO$$

However, when Siam gum benzoin is similarly treated with potassium permanganate solution in a test tube no odor of benzaldehyde is evolved, showing that this gum does not contain any cinnamic acid.

"BLOCKS" AND "ALMONDS"

Sumatra gum benzoin is generally classified into "blocks" and "almonds." The almonds, which bring a higher price in the market than the blocks, vary in color from a yellowish white to a light reddish yellow. The blocks are hard brittle masses consisting of whitish or reddish tears embedded in a grayish brown to reddish brown matrix. Gum benzoin has been known for a number of centuries: over three hundred years ago Blaise de Viguere described the preparation of benzoic acid by the process of sublimation from this gum. In 1775 the famous Swedish chemist Scheele extracted benzoic acid from the gum by boiling the resinous material with calcium hydroxide and after concentrating the solution, acidifying with hydrochloric acid. The yield of benzoic acid from the gum by either of these two methods is very low, less than 20 per cent, and very little if any benzoic acid is obtained from Gum benzoin today.

The modern method of manufacturing benzoic acid consists in the oxidation of toluene which is obtained from coal-tar distillates.

DIFFERENCES BETWEEN SUMATRA AND SIAM GUM

Sumatra benzoin contains approximately from 20 per cent to 30 per cent of free balsamic acids and not over 60 per cent of total balsamic acids, both free and combined. The percentage of

*Chief Chemist, Compagnie Parento, Inc.

Benzoin Siam "masses" and a bottle containing the alcohol soluble resin

balsamic acids is always calculated on the basis of the dry alcohol-soluble matter of the gum so that the percentage of these acids present in the natural gum as obtained from the tree and containing some moisture as well as alcohol-insoluble matter is always somewhat less than the figures given above. The Sumatra variety also contains about 10 per cent to 15 per cent benzoic acid (sometimes more) and about 20 per cent cinnamic acid, mostly in the form of its esters (cinnamates). According to Lüdy, the Siam variety, unlike the Sumatra, does not contain cinnamic acid, as has been pointed out above.

USE IN PERFUMERY

In perfumery benzoin Siam is used more often than benzoin Sumatra because it has a stronger odor but a good quality of Sumatra gum can certainly contribute much to various types of excellent perfume compositions. Because benzoin gums contain some alcohol-insoluble matter as well as foreign particles such as pieces of bark from the trees, soil, bits of straw, etc., most perfumers prefer to use gum benzoin in the form of an alcohol-soluble resin or resinoid. There are a number of these products offered on the market by the essential oil houses. The quality of such a resin, provided nothing extraneous is added either to cheapen it or to try to improve it, depends on the method of extraction used, the care taken in carrying out this method and most important of all on the quality of the original benzoin gum selected for the manufacture of the resin.

RESINOUS MATERIAL NOT HOMOGENEOUS

Unverdorben[1], one of the earliest investigators of benzoin gum, found that the resinous material is not homogeneous and he distinguished a number of fractions according to their solubility in various solvents. To these fractions he gave the names, alpha-resin, beta-resin, gamma-resin, etc., but as he did not succeed in identifying any of these so-called "resin-fractions" his work has only historical value. Lüdy[2] showed that these "fractions" were not individual chemical compounds but partially hydrolyzed cinnamates, (in Sumatra gum), of the alcohols present. According to him, the

Dr. Victor G. Fourman, specialist in perfume raw materials, has devoted considerable time to study of gums and resins

chief constituent of the Siam gum is a mixture of a small amount of what he termed "benzoresinol benzoate" with a large amount of "siaresinotannol benzoate."

The benzoresinol alcohol he described as a solid crystallizing in white prisms and melting at 272° C.; the siaresinotannol alcohol, as a brown powder having the empirical formula $C_{12}H_{14}O_3$. His work was far from complete yet much of the chemistry of gum benzoin found in the book, *Analysis of Resins, Balsams, and Gum Resins*[4] and even in more recent handbooks, is based on the researches of this early investigator. Dietrich[3] states that Siam benzoin has as one of its constituents an oily neutral liquid containing either cinnamyl benzoate or benzyl benzoate, to the extent of about 0.3 per cent, also some vanillin, 0.15 per cent. He lists as some of the constituents of Sumatra gum: ash, 0.01 per cent; free benzoic acid; styrol; traces of benzaldehyde; vanillin, 1 per cent; cinnamic phenyl propyl ester, about 1 per cent; cinnamyl cinnamate (styracin) about 2 per cent to 3 per cent.

RESEARCH 25 YEARS AGO

A note on Siamese gum benzoin summarizing the work of Lüdy and of Reinitzer was published in *The American Perfumer*[5] more than twenty-five years ago. Reinitzer[6] subsequently wrote a number of interesting articles on the production of gum benzoin but these are of a descriptive nature and add little to the knowledge of the chemical constitution of the gums under consideration. Two recent publications of note deal with the Sumatra variety. One of these is the thesis (in the Dutch language) by P. H. Brans[8] which describes in great detail the cultivation of the trees, preparation of the gum, analytical methods for the determination of cin-

namic and benzoic acids but throws little light on the chemical nature of the balsamic acids present. The other publication[7] is mainly a summary by the same author.

Almost fifty years have passed since Lüdy first wrote of "benzoresinol benzoate" and "siaresinotannol," etc., in an attempt to define the chemical nature of gum benzoin. This was a good start but we know little more of the chemistry of these substances today than was known five decades ago. The writer is at present engaged in some chemical studies connected with balsamic acids obtained from gum benzoin and hopes to present at a later date in this publication some notes on his experimental work.

BIBLIOGRAPHY

1. Unverdorben, Pogg. Annalen, 1826, 8, 397
2. Lüdy, Archives Pharmacie, 1893, 43, 231
3. Dieterich, Analysis of Resins, Balsams, and Gum Resins, English edition, Scott, Greenwood & Co., London, 1901
4. The American Perfumer, 1912, vol. 7, March
5. Reinitzer, Parfums de France 1927, vol. 5, pp. 30-36, pp. 6571
6. P. H. Brans, "Sumatra Benzoe" Thesis, 162 pp. Amsterdam, 1935
7. P. H. Brans, Pharm. Weekblad, 1936, 73, 374-400

FDA Inspection Scenario

FOOD and Drug Inspectors make rounds of key factories and warehouses.

Broken carton in one warehouse excites inspector's suspicions. Inspector takes sample.

At Food and Drug laboratories chemical and microscopic analysis of sample reveals that the food is filthy, contains decayed vegetable matter, and is in violation of the Food and Drug Act.

Food and Drug inspector, who cannot seize food or make arrests himself, goes to United States Attorney's office and asks the Federal attorney there to libel the shipment of food he has turned up.

The Federal attorney goes before a Federal court and begins condemnation proceedings against the illegal shipment.

A marshall from the United States District Attorney's office seizes the offending shipment.

Owner of the shipment is served with notice of court proceedings.

At court the Food and Drug inspectors and the chemists and micro-analysts who examined the food testify.

Federal court judge orders the illegal food to be destroyed.

United States marshal armed with the court order destroys the food.

Such a scenario, consumers should know, does not describe every proceeding under the Food, Drug, and Cosmetic Act. There can be appeals, and sometimes the seized materials are not destroyed at all; instead, where part of the goods seized are legal materials, the owner is permitted to separate the good from the bad or if the material can be made legal the manufacturer is permitted to rework the goods to bring them up to standard or if they are only misbranded is permitted to relabel them. This scenario, however, describes a typical case.—*Consumers' Guide.*

Saving Taxes by Advertising

ADVERTISING is the logical solution for corporations which find it inadvisable to pay dividends because of stockholders' taxes, and at the same time wish to invest in their business future. The following tables indicate taxes and the savings obtainable by various advertising disbursements under the tax laws.

The taxes in the table assume that:

1. The Capital Stock and Excess Profits Tax will be held down to a maximum of 1 per cent of income.
2. State taxes will run 6 per cent of income.
3. There are no credits or non-taxable income which would involve an alternate method of taxation.
4. No dividends have been received or are to be paid.

* Most companies paid at least four taxes based upon income under the 1936 Act: the State Income or Franchise Tax, the Federal Excess Profits and Capital Stock Tax, the Federal Normal Tax, and the Federal Undistributed Earnings Tax. Under the 1938 Act, the Undistributed Earnings Tax is virtually eliminated, and the Excess Profits Tax should be avoided in view of the amendment to the Capital Stock Tax.

SAVINGS IN TAXES BY ADVERTISING, ACT OF 1938

If Income Before Federal and State Taxes Is	Then Total Federal and State Taxes Will Be*	But If the Following Amounts Are Spent for Advertising the Savings in Tax Are Those Stated Below				
		$5,000.00	$10,000.00	$15,000.00	$25,000.00	$50,000.00
$ 5,000.00	$ 928.62	$ 928.62	$ 928.62	$ 928.62	$ 928.62	$ 928.62
10,000.00	1,921.84	993.22	1,921.84	1,921.84	1,921.84	1,921.84
15,000.00	2,920.26	998.42	1,991.64	2,920.26	2,920.26	2,920.26
20,000.00	3,918.68	998.42	1,996.84	2,990.06	3,918.68	3,918.68
25,000.00	4,982.40	1,063.72	2,062.14	3,060.56	4,982.40	4,982.40
30,000.00	7,386.42	2,404.02	3,467.74	4,466.16	6,457,80	7,386.42
35,000.00	8,617.49	1,231.07	3,635.09	4,698.81	6,695.65	8,617.49
40,000.00	9,848.56	1,231.07	2,462.14	4,866.16	6,928.30	9,848.56
50,000.00	12,310.70	1,231.07	2,462.14	3,693.21	7,328.30	12,310.70
75,000.00	18,466.05	1,231.07	2,462.14	3,693.21	6,155.35	13,483.65
100,000.00	24,621.40	1,231.07	2,462.14	3,693.21	6,155.35	12,310.70
150,000.00	36,932.10	1,231.07	2,462.14	3,693.21	6,155.35	12,310.70
200,000.00	49,242.80	1,231.07	2,462.14	3,693.21	6,155.35	12,310.70
250,000.00	61,553.50	1,231.07	2,462.14	3,693.21	6,155.35	12,310.70

HAIR DYE MANUFACTURERS MUST PROTECT PUBLIC

Why the problem is beyond governmental regulation . . . Certified colors not required in hair dyes . . . What the manufacturer may do to insure proper use of hair dyes . . . by Florence E. Wall*

DURING the last feverish days of the battle over the revision of the Food and Drug and Cosmetic Law, and on many occasions since the new statute was enacted, aspersions have been cast on the integrity of our legislators, the Food and Drug Administration, and selected individuals because of the apparent leniency in the control of hair dyes. The suspicion has even been raised that "interests" succeeded in reaching someone, or the provisions surely would have been more drastic.

THE LAW ON HAIR DYES

The only specific mention of hair dyes in the new law comes in Section 601, on the adulteration of cosmetics; to wit:

> 601. A cosmetic shall be deemed to be adulterated,—
> (a) If it bears or contains any poisonous or deleterious ingredient or substance which may render it injurious to users under the conditions of use prescribed in the labeling thereof or under such conditions of use as are customary or usual, *Provided*, That this provision shall not apply to coal tar hair dyes the label of which bears the following legend conspicuously displayed thereon: "Caution: This product contains ingredients which may cause skin irritation on certain individuals, and a preliminary test according to accompanying directions should first be made. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness," and the label of which bears adequate directions for such preliminary testing. For the purpose of this paragraph and paragraph (e) the term "hair dye" shall not include eyelash dyes or eyebrow dyes.
> (e) If it is not a hair dye and bears or contains a coal tar color other than one from a batch that has been certified in accordance with the requirements as provided in Section 604.

Further, in the *Regulations*, "coal tar hair dyes" are defined as—

> "—all articles containing any coal tar color or intermediate which color or intermediate alters the color of the hair when such articles are applied to the hair under the conditions of use prescribed in the labeling thereof, or under such conditions of use as are customary or usual."

RINSES UNDER REGULATIONS

This interpretation of "coal tar hair dye" thus brings under the regulations both the simple rinses, used after a shampoo to impart a slight tinge of color to the hair, and the more or less permanent colorings used to mask graying, or frankly white, hair.

Some confusion seemed to exist formerly in the trade as to the exact nature of these coloring agents. On more than one occasion, the author has been solemnly assured that the colored rinses were "vegetable dyes." When questioned further, one manufacturer said that this was proved by the absence of a peroxide developer; another naively said, "Of course, they're vegetable dyes! Aren't they used to color vegetables?" And in a commendable effort to anticipate regulation, some manufacturers attempted to make a line of rinses from combinations of the formerly limited range of certified colors for foods. (One still sees heads tinged with "carrot orange," "beet red," "eggplant purple," and even "spinach green," but they are obviously just accidents or mistakes, and not caused by these rinses, anyway.)

The rinses should present no difficulty for the manufacturer. Made on a mild acid base, similar to a well known line used for refreshing the color of garments and fabrics, a whole range of shades for flattering highlights in the hair can be produced from the certified colors. Even with the dyes formerly used, there seems to be no record of any resultant systemic or dermatologic condition, so all should now be serene in that quarter. If the given shade is made from certified colors, this fact must be stated. If any other color is used, the manufacturer is still within the law, provided that he can certify that his product contains nothing "poisonous or deleterious," and is safe and harmless, as customarily applied.

CERTIFIED COLORS NOT REQUIRED IN HAIR DYES

The special proviso in the law relates particularly to the different type of coal tar dyes, used in the permanent hair colorings, for which no certification provisions have been made. These are the group of compounds called variously "aniline derivatives," "amino-dyes," "peroxide dyes," "para

*Consulting Chemist and Lecturer on Cosmetology, New York University.

dyes,"* etc., made with and without the addition of soapy ingredients. The seeming discrimination under the law may be interpreted as a willingness on the part of the government to recognize both the economic necessity for good hair colorings and the admitted limitations of the best products now available; and provide a means of warning the users of such products against any possible untoward results. It admits the difficulties due to personal hypersensitivity in the user, and puts the responsibility right on the manufacturer to protect the public.

Viewed thus objectively and collectively, the whole group of proprietary dyes of this class has become subject to the same regulations. Time was when the presence or absence of just one compound of this type sufficed for vitriolic competitive advertising campaigns.

Under the law, however, all are considered together, and all have an equal chance of survival, provided that they comply with these simple requirements. After the manufacturer, the user of the dye is also responsible, whether this be the ultimate consumer who applies the product at home, or a professional operator in a beauty shop.

The principal objections that have heretofore been raised against a general adoption of the now required preliminary test for predisposition were both psychological and economic. It was felt that loss of business might result from fear engendered in the patron, and from the delay of a full day between preliminary test and complete application of the coloring. Through proper education, any fear could be turned into confidence by building up the value of such a precautionary measure. The memory of the public is short. For one that might drop away because of the delay in completing the job, a number of new prospects will be coming along, who will not know that things were ever any different, and who will soon adjust themselves accordingly. Hair dyeing is one of the "hardy perennials" of the industry.

It is extremely unfortunate that "the fear of the unknown" has befogged a clear understanding of these valuable coloring agents. The history of this type of hair dye has been brief but turbulent and the mass of writing that has accumulated on these compounds is almost incredible. The first to be put to practical use was *para*-phenylenediamine, in 1883.[1, 2, 3, 4, 5] First used for furs, it was soon adopted for use on human hair. The application of other, similar and related compounds quickly followed, and "the ideal dye" for which Dr. Herman Beigel[6] had sighed in 1869 seemed to be at hand. The occurrence of dermatitis among users of both fur and hair dyes caused considerable consternation, and eventually led to the regulation of *para*-phenylenediamine in several countries of Europe.

For a proper evaluation of this useful compound, the vast quantity of literature—"literary dishwater"—on *para*-phenylenediamine needs a good filtering. Methods of application have long since been changed; chemists, physicians, and hairdressers now (ought to) know much more about it in the light of modern knowledge; and it is too bad that zealous but inadequately informed compilers and rewriters still lean so heavily on the published mistakes of the past.

*The antiquated abbreviation *para* for paraphenylenediamine seems inadequate; *ppd* would be better. Also, the nickname "para dyes" for this general class is both inaccurate and out of date, since many of the shades in any line do not contain *ppd*, nor even any other *para* compounds; see list given.

RELATED COMPOUNDS FOR SIMILAR USE

Among the related compounds suitable for similar use, either alone or in mixtures, are *meta*- and *para*-toluylenediamine, *ortho*- and *para*-aminophenol, *ortho*-, *meta*-, and *para*-toluidine, diaminophenol, *meta*-dihydroxybenzol (resorcinol), diaminodiphenylamine, *para*-methyl-aminophenol, and pyrogallol. Through careful mixing of bases, a whole range of beautiful, natural-looking shades can be produced. Very few of the commercial preparations on the market consist of simple substances. All the best lines consist of carefully planned and tested mixtures, from which practically any shade of human hair can be duplicated.

All this takes time, money, and "know-how"—a fact not always appreciated by the amateur or tyro. Dissatisfaction with the metallic dyes has brought in many inquiries about the possibility of changing to the organic dyes. The answer is always the same: success with these preparations means more than culling a few recipes from the formularies, and unless the manufacturer is prepared and willing to meet stiff competition and match it with good advertising, good service and satisfaction, he had better decide to manufacture some other type of hair preparation.

AMINO DYES MAY CAUSE DERMATITIS

Considered objectively and dispassionately, the trouble with these amino-dyes is that under certain conditions they may cause dermatitis in some individuals. The same phenomenon is familiar enough in foods and drugs, yet the agitators seem most upset by such a possibility in relation to cosmetics. It is laid to "allergy," "idiosyncrasy," "predisposition"—what you like—but relatively little is definitely known about it. Many years of observation and experience with these dyes have shown widely varying results: the totally unexpected appearance of dermatitis in an individual who had safely used her favorite preparation for years; and the non-appearance of any trouble whatever, after the application of hair dye to another person in poor general health and with an abraded scalp. It is difficult to formulate rules, but it is clear that much of the burden of responsibility in the use of these hair dyes lies in proper education of patrons, of beauty operators and hairdressers, and of manufacturers themselves, that they may appreciate the vast amount of sound research that is still needed on this whole subject, and encourage their cooperation in solving its problems.

The needs of such a program go beyond the publication of the directions for making the preliminary test. Most booklets say, "If there is any positive result of the patch test, this product should not

FIG. 1

FIG. 2

FIG. 3

Fig. 1. Series of tests to determine exact cause of irritation. Spot at elbow, dye alone (negative); blank spot, peroxide and ammonia (negative); spot nearest wrist, shampoo soap (positive). If a complete application had been made on this subject, and dermatitis resulted, the dye probably would have been blamed. Fig. 2. Application of dye to scalp area and neck. Fig. 3. Application of dye at elbow. A light red border around the patch indicates a positive reaction.

be used." This is commendable, but a scientifically-minded investigator would not want to stop there. It has occasionally been observed that the patch test is negative, yet when the dye is applied to the entire head, dermatitis results.

THREE TESTS SUGGESTED

For the simplest protection against such a misfortune, the preliminary test should have exactly duplicated the conditions of an actual application. Since a head of hair is always shampooed and softened with hydrogen peroxide (with or without ammonia) before the coloring is applied, more accurate results can be foretold by making three tests: 1) shampoo soap and water; 2) shampoo (washed off) followed by peroxide and ammonia (in proportions required for hair), on same spot: 3) repeat 1) and 2), then (without sponging spot) apply dye mixture exactly as it is to be used.* The results of such a series of tests have occasionally shown that the actual irritant was the shampoo or the softener, rather than the dye itself. A well informed operator, meeting such a situation, should know how to handle the case to the best satisfaction of everyone.

BEST MANNER OF MAKING PATCH TEST

Opinions differ as to the best manner of making the patch test. Following the ideas of earlier investigators, the application of this test to hair dyes was published by Dr. Sabouraud in 1911.[7] His original directions call for first sponging with alcohol and then painting the dye on a spot partly within, partly beyond the line of the scalp area behind the ear.** This was to be covered with collodion and left undisturbed for twenty-four hours. Some authorities still recommend this technique, but more satisfactory results have been obtained by sponging and painting the spots within the bend of the elbow,*** and leaving the dye exposed to the air (or covered lightly with gauze, if a long sleeve is to be worn). The subject can thus watch the reaction carefully and guard against washing off the spots, or other mishaps. The second procedure more nearly simulates the conditions of an actual application of hair dye. It is acceptable to the Board of Health of New York City, which has prescribed such a test since 1931.[8]

Any positive result of the patch test manifests itself in redness under and around the spot of dye. The subject should be reassured on this point, on the absence of danger because the irritation is only local; unless there is an abrasion or other opening in the skin, there is usually little fear of absorption. Signs of irritation may appear almost at once, but the spot must be left for fully twenty-four hours. In exceptional cases, the dermatitis may appear after even a longer time.[9]

PROBABILITY OF DERMATITIS

The incidence of dermatitis from *para*-phenylenediamine alone has been estimated in widely varying percentages: from 1 in 200 or 250, to 1 in 10,000. A recent study[10] reported 4 cases in 1000. When it is considered how relatively little of this individual compound goes into the average complete range of shades of the most popular dyes on the market, this figure should not be taken as authoritative for hair dyes in general. Several of the compounds listed previously are known to produce dermatitis in varying degree, though there seems to be no correlation between incidence and any special properties of the compounds. A whole program of study remains to be undertaken to determine percentages for the mixtures in actual use. When the relatively small number of cases reported is figured against the—literally—millions of applications made in any year, the percentage would be appreciably less.

CURIOUS EFFECTS OF DERMATITIS

But whatever it may prove to be, the preliminary testing for predisposition is designed to protect even those few from discomfort, and all operators should be made to comply with the law. Considerable educational work is required to acquaint everyone concerned with the probable effects of dermatitis, so that they may know what to expect. Aside from redness of the skin, there may be some slight itchi-

*See illustration, Fig. 1.
**See illustration, Fig. 2.
***See illustration, Fig. 3.

ness, a slight inflammation, or some other symptom, not immediately related to the dye. In one such case, which was under observation for several months, the subject had been using a straight *para*-phenylenediamine product for two years without any trouble, when after an application, exactly as usual, she developed a serious case of dermatitis. She was hospitalized for two months, not helped, it must be said, by the fact that the condition was not recognized by her medical attendants. When questioned, she recalled having felt "a watering of the eyes after earlier applications" but never associated this with the dye.

CUMULATIVE EFFECTS DOUBTFUL

Under the circumstances, such a case would once have been considered due to "cumulative effects" of *para*-phenylenediamine poisoning. It is now believed, however, that cumulative effects, such as follow the absorption of metallic poisons, do not result from these organic compounds; and that if untoward effects follow the application of a hair dye to a person hitherto not adversely affected, it is usually due to some temporary derangement. Several cases, under observation from time to time, have borne out this assumption. Considerable clinical work remains to be done before the facts can be established.

HAIR DYE POISONING MUCH EXAGGERATED

The nature of "hair dye poisoning" takes much explaining, even now. Unfortunately, it has been isolated and magnified to absurd proportions; while actually, it is simply *dermatitis venenata*, a self-limiting dermatosis, similar to ivy poisoning.[11, 12] Most of the long list of alleged internal effects may be classified as "legal diseases." They are largely a legacy from the earliest decades, when physicians and pharmacologists seemed not to know with what they were dealing. Any rare case found nowadays more probably would be due to industrial occupation with furs, or the manufacture of raw materials.

However, serious or slight, the paramount object should be to prevent the development of *any* case of dermatitis from hair dye, by conscientiously making the preliminary patch tests on any person who calls for dye for the first time whether or not the hair has been dyed previously. Not the least benefit to manufacturers and to the shops will be some measure of protection from malingerers—those persons who, knowing they are sensitive to hair dyes, still deliberately expose themselves to dermatitis for the sake of collecting damages.

Comment is hardly necessary on the prohibition against the use of the amino-dyes for coloring the eyebrows and lashes. Had a preliminary test been required for all who intended to use these products for this purpose, undoubtedly much of the unfortunate trouble might have been averted. The relatively larger market for this form of application necessarily exposed a greater number of individuals to possible danger and every precaution should have been taken. The results were terribly unfortunate, but to have legislated this whole class of dyes out of existence would also have been more than unfortunate. No one can condone what has happened in the past, but every effort should be made to cooperate in preventing any such abuse of valuable products for the future.

EDUCATIONAL WORK NEEDED

The greatest need at the moment is for sound education and intelligent public relations on all these matters, to break the spell of reticence within and hysteria without which for too long has surrounded this subject. The industry and the trade and the public at large have nothing to lose and everything to gain from the new requirements. It is to be hoped that everyone concerned will accept the responsibility implied in the special provisions governing hair dyes and abide by them until someone's enterprising research discovers some other type of dye at least as good as the excellent amino-compounds, for which certification can be asked, and the responsibility handed right over to the Government.

REFERENCES

1. Wall, Florence E.
   Canitics; Inecto, Inc., New York, 1926.
2. Wall, Florence E.
   Fifty Years of Paraphenylenediamine; J. Tech. Assn. Fur. Ind., September, 1934.
3. Wall, Florence E.
   The Basic Science of Hair Treatments; Nestle-LeMur, New York, 1935.
4. McDonough, E. G.
   Truth About Cosmetics; Drug and Cos. Ind., New York, 1936.
5. Redgrove, H. S.
   Hair Dyes and Hair Dyeing; Chem. Pub. Co., New York, 1939.
6. Beigel, Herman, M. D.
   The Human Hair; London, 1869.
7. Sabouraud, Raimond, M. D. Tribune, New York, November 26, 1911.
8. Dept. of Health, New York City;
   Sanitary Code, Sec. 128.
9. Schwartz, Louis, M. D.
   Discussion of 2, above; *loc. cit.*
10. Ingram, John T., M. D.
    Dye Dermatitis in Relation to Idiosyncrasy; Brit. Jour. Derm. Syph., August-September, 1932.
11. Sabouraud, Raimond, M. D.
    Diagnostique el Traitement des Affections du Cuir Chevelu, Paris, 1932.
12. Cox, H. E.
    The Chemical Examination of Furs in Relation to Dermatitis; Analyst, December, 1929; December, 1933.

Odd and Interesting

IN Europe, the great, great grandfather establishes a business, the family carries on, and eventually most of the people know about the product or the store. In the United States a business is established, the product is tested and perfected, and the time element is eliminated by advertising—by telling the whole world about it.

Napoleon Bonaparte was a lavish user of eau de cologne. Alexander the Great had his floors perfumed regularly. Cardinal Richelieu invented a bellows with which to perfume his living quarters. Jack Dempsey is a large user of lilac water and lavender.

EDITORIALS

THE TIME TO OPPOSE LEGISLATION

THE legislatures in eight states are holding regular sessions this year; and all but one, Louisiana, which convenes in May, already are at work. Of the eight states, Kentucky, Mississippi, Rhode Island and South Carolina have not passed new state food, drug and cosmetic acts. It is reasonable to assume that they will consider such bills.

The time to oppose legislative bills which unfavorably reflect themselves on the industry is when they are introduced. In the majority of cases bills are introduced with the best of intentions by legislators who unfortunately are not adequately informed and as a result the ramifications of the measures as written are likely to go far beyond the intent and purpose of the original bill.

Not only is it incumbent on the allied industries to carefully watch all proposed new cosmetic and food bills and to aid legislators in developing the true facts, but it is also the part of wisdom to give careful consideration to other discriminatory bills where the rights of retailers are restricted in the handling of cosmetics, drugs and foods. Such bills include those for state trade mark registration, wage and hour, false advertising, tax measures, and particularly proposed requirements for the registration of products and the payment of annual license fees as a prerequisite to carrying on business in any given state.

THE PRESIDENTIAL YEAR BOGEY

THAT a presidential election year means poor business is a bogey. Facts disprove it. Only four out of thirty presidential election years were marked by depressions. Harvard and Columbia university researches confirm the accuracy of the following table by Hull and Boumattan. The years of depression are marked by "D". All others were normal or prosperous.

1812	1840	1868	D—1896	1924
1816	1844	1872	1900	1928
1820	1848	1876	1904	D—1932
1824	1852	1880	1908	1936
1828	1856	D—1884	1912	
1832	1860	1888	1916	
1836	1864	1892	D—1920	

Business in 1940 will be good. With the per capita consumption of all toiletries in the United States below that of France or England or Germany and with increased purchasing power on the part of the public, it is not unreasonable to feel that the upward sweep of business will carry the industry to an all-time record for the year 1940.

ABOLISH THE CASH DISCOUNT?

THERE are few companies which have not been plagued at times by the many vexing problems that arise from giving cash discounts. One of these is the practice of extending the discount period for favored customers. Another is the difficulty in straightening out erroneous discount deductions. And still another is the loss; 2 per cent discount for cash in ten days may amount to 72 per cent interest a year on purchases. The solution of the problem is to remove the cause. One concern which abolished cash discounts reports that it had no losses in sales. With bank loans available at 2½ per cent to 4 per cent, and call money at 1 per cent, there really is no sound reason for continuing cash discounts.

THE POLICY OF THE F.D.A.

THE earnest and whole-hearted attempt by all branches of the industry to comply with the provisions of the Federal Food, Drug and Cosmetic Act is a tribute to the manufacturers in the industry. There were difficulties in doing this; it was no fault of the industry that certified colors were not made available until late in the year. The problem of establishing satisfactory standards still is in abeyance in some instances. There are, and will continue to be for some time, honest differences of opinion as to the interpretation of various provisions. But no one can deny that an honest attempt was made to fulfill the requirements of the act to the letter. There may be lapses in complying with the law, but they are mistakes of the hand rather than of the heart. Fortunately, the men who direct the Food and Drug Administration appreciate the difficulties encountered in conforming to provisions of any general statute, and it may be expected that they will be lenient for it is not the policy of the administration to cause loss or damage to any manufacturer who honestly is trying to comply with the law. Probably there will be no prosecutions for technical labelling violations until after July 1.

desiderata

Comment on new and interesting chemical developments and their application in the creation and manufacture of toilet preparations of all kinds

by MAISON G. DE NAVARRE

Heating Kettles The trend is toward light weight equipment wherever possible. Aluminum and its alloys fill the bill nicely. In fact, the writer has just seen a nice example of large capacity kettles, in light weight aluminum, which remain shiny at all times, and may be used for a variety of melting and emulsifying jobs. The price is so low, it'll make you wonder how it can be done. And to show you how these people operate—a client recently sent in an order on our recommendation, and remitted his check for the price quoted. The kettle came through all right, and just ahead of it a letter advising that the price of the kettle had been reduced almost ten dollars and that the same was being returned. Nice kind of people to know, aren't they?

After Depilatory Wonder why someone hasn't tried to sell an after depilatory talcum containing say zinc oxide, a little boric acid maybe and some zinc stearate and talc? Every woman who uses a depilatory would be glad to buy a can. The product would overcome quickly the remaining odor of sulphide and would act to neutralize the absorbed alkalinity in the skin. The stearate would be soothing and the talc, act as a carrier. In fact, every tube or jar of depilatory should carry a small sample of a similar product, thus creating a market for a new item. It may be an idea. . . .

Foam Galore If you, too, are interested in foam or unusual wetting, dispersing or detergent properties, you must get a copy of the Wetting Agents Bulletin just off the press. For the next 90 days, subscribers may get their copy free by writing in and asking for it.

The Bulletin lists all the wetting agents with cosmetic possibilities, tells you how to concoct products, relates the chemical composition of wetting agents, what they may be used for, how much they are a pound and where to buy them.

Liquid Dentifrice A liquid dentifrice cannot be made with a wetting agent having an odor or taste. A new product recently refined for just this purpose has been introduced. Foams like the divvel and is tasteless. Price is right, too.

Methyl Cellulose Two additional grades of methyl cellulose have been added to the list of four already being made. The new products are of low and extremely high viscosity materials. Interesting in depilatories, dentifrices, shaving preparations, soaps and similar products.

New Absorption Base Built around an entirely new principle, a new absorption base has just made its appearance. It absorbs 500 per cent water readily, and is inert to acids. A real hunch for a deodorant cream containing acid reacting ingredients.

Magazine Binders Just ran into an inexpensive binder for magazines. It costs a dollar and can hold a dozen or more journals. The binding is cloth covered and stiff. At the moment two sizes are available, 8 x 11 inches or 7½ x 11 inches. Come in two colors, red and green. Really an inexpensive way to keep your journals looking trim and neat.

Gum Substitute A new completely synthetic substance of unknown composition, having a very desirable stringiness, produces thick mucilages in low concentrations. Resulting mucilages are low in solids and dry unusually fast. If you are a maker of hair waving fluids, you ought to investigate. The material will not mould or sour and produces clear, colorless mucilages. It is uniform from batch to batch and you are not dependent on foreign imports. It is purely a synthetic material. It may be used as a thickener in emulsions, sizes, waving fluids and other products requiring a mucilaginous ingredient.

Skin Stimulation

SOME very interesting work has resulted from the efforts of The Institution Divi Thomae Foundation, a great deal of which originates in the brain of Dr. Sperti. Most recent is the discovery that human skin respiration which declines with increasing age, may be stimulated by applications of certain skin respiration stimulants. It is a known fact that young skin absorbs more oxygen and breathes more rapidly than old skin; in addition many cosmetic preparations further depress respiration and hence exaggerate age.

Respiration stimulants are obtained by extracting the active substance from various living cellular

matter such as yeast, malt combings and other sources.

Adding a concentrated respiration stimulant to cosmetic cream at the rate of ½% increases respiration by 10% as shown by carefully controlled manometer tests. Cosmetics not containing such additions do not manifest this effect.

At the moment, this discovery is the subject of patent application in England, and probably in this country as well.

Another patent specification open to inspection in England is No. 33310 which describes the extraction of cows' udders with selective solvent, and purifying the residue left after evaporation of solvent used.

This particular patent describes the *process* of extraction rather than the *use* of the extracted material, though its application is mentioned in the specification. This product like the first one described above, is intended to increase skin circulation by stimulating it.

Digesting both patent specifications, one fact stands out in particular: AGEING SKIN REQUIRES STIMULATION, and if stimulation is supplied, the skin may be given the *appearance of youthfulness.*

The fertile mind of man has been trying to solve this problem of rejuvenation for ages. Going back into old Chinese medical practice, one learns that finely minced dried frog skin was incorporated into fats and applied to skin to stimulate circulation and aid in healing wounds. In more recent times, the use of various "hormone" extracts has come into practice. Then came the use of vitamins as youthifying substances . . . and all for nothing, for neither the F.D.A. nor the F.T.C. can be convinced that the facts prove the claims. But then, *if they do,* the product is no longer a cosmetic but a drug as it affects a function or structure of the body.

Understand, the term rejuvenation is poorly chosen. Giving the skin a *feeling and appearance of youthfulness* is beautifying and products capable of doing this are cosmetics.

The applicants for both patents are reliable. The patents are quite probably the result of numerous tests. Accordingly, their findings may be considered as true. It will be interesting to watch the application of these findings to cosmetics.

The Cosmetic Law is in Effect Now

Answers to the problem of what is to be done with incorrectly labeled products on dealers' shelves and those made before certified colors were available

1. Q. *Our dealers are inquiring whether the merchandise sold to them prior to the effective date of the Food, Drug and Cosmetic Act must be returned to us for relabeling to conform to the law. Will our merchandise on dealers' shelves shipped prior to the effective date of the cosmetic law be subject to prosecution by the government?*

A. The query presumes quite improperly that all merchandise on your dealers' shelves is not labeled properly. Many manufacturers for months prior to January 1, 1940, have been sending merchandise to their trade which in all respects conforms to the new law. Only a small amount may be mislabeled.

It is advisable not to let your dealers return any goods on their shelves. If you do so you may get back merchandise that has been on hand for years. Merchandise on the dealers' shelves as of January 1, 1940, may still be sold in the state where it is located. (The last statement applies if the state law does not prohibit it. Fifteen states have food, drug and cosmetic laws.) If merchandise is taken back by the manufacturer for relabeling there should be a charge for the relabeling. It is unlikely that the Food and Drug Administration will take any action before July 1, 1940, on technical mislabeling such as the omission of the net contents or failure to disclose the name and address. But be sure that the product complies with subsection 602a of the statute covering false and misleading descriptions of products. For instance do not call your product a skin food, a hair restorer, a nourishing cream, etc. If your labels are not in conformity with this provision they should be recalled at once and reprinted at your own cost or you may be courting trouble.

2. Q. *We market rouge and lipstick which is put up for us by a private label manufacturing concern. This private label house maintains that the colors which they have been using right along in the production of lipstick and rouge have been certifiable but were not certified due to the delay experienced by color manufacturers in securing certification of colors by the government. We now have on hand a rather large supply of such rouge and lipstick. All of it was shipped to us since last March. How can we use the stocks on hand without violating the law?*

A. Under a strict interpretation of the law you cannot do so. Assuming, however, that the colors in these products are exactly the same as the present certified colors we do not see how the government can prove that they are not certified colors, except from the date of shipment. We believe that these products may be used; but be careful not to give a guarantee that they comply with the law, inasmuch as a guarantee is a positive warranty. Instead, if your customers insist on some form of guarantee advise them that you will guarantee to hold them free from liability.

3. Q. *We have on hand a stock of face powder made with uncertified colors which was bought from time to time from a private label house since March, 1939. This stock is on hand due to our inability to get from color manufacturers the necessary certified colors in sufficient time to keep our stocks of face powder in the proper proportions. In fact we still do not have one of the certified colors which is necessary for our face*

(Continued on page 110)

FTC BLUE PENCIL: BEFORE AND AFTER

A collection of copy claims and advertisements published before and after signing of FTC stipulations

SINCE the Wheeler-Lea Act took effect in May, 1938, the Federal Trade Commission has scanned thousands of ads, and taken action, where it felt itself empowered, by way of complaints, stipulations, or cease and desist orders. But in the desirable ethical clean-up, many pet copy themes have had to be sacrificed.

While the law will necessarily cause inconvenience in its first few years of operation, it is obvious that advertisers should get the feel of its strictures as soon as possible. Probably no better approach can be made than by studying actual cases of FTC action; and better still by seeing how advertisers have changed their copy to conform.

Following are examples[1] of before-and after copy of well-known advertisers who have been involved with the Commission. Where copy would be legible, the ads are reproduced; otherwise, salient portions are quoted. Claims to which the FTC specifically objected are italicized.

JERGENS LOTION

Before: Water—as well as wind and cold—is hard on your hands. *It takes away their special beautifying moisture.*

Why is Jergens so effective? First, this lotion *restores moisture inside the skin cells*, where hand skin needs it. Tests prove *Jergens goes* in more thoroughly than any other lotion tested. It leaves no stickiness.

Second, *Jergens contains two famous ingredients that doctors use.* The first application helps.

After: "I knew your hands would feel soft . . ."

Now, "dose ol' debils"—cold, and biting wind and constant use of water are always "after" your hands. Stealthily they make away with the natural moisture that is meant to keep your hands smooth.

Foil those villains! Every time you've been outdoors in the cold or have had your hands in water use Jergens Lotion. Loyal Jergens furnishes moisture for the skin, to help do the work of the dried-out natural moisture.

V. VIVAUDOU, INC.

Before: *Tomorrow make the undies test and prove that Mavis keeps you dainty . . . adorable . . . utterly safe from giving offense. It's an easy test—just shower your body with Mavis Talcum in the morning . . . then at night, notice that your undies are fresh and sweet.*

Mavis Talcum forms a fragrant, soothing film of protection between your clothing and your skin. This lets *the pores breathe* . . . and yet—in a normal, healthy way—*reduces the amount you perspire.* Think what a blessing this is on a hot summer day!

After: It's this stickiness that makes summer so hard to bear. Mavis Talcum—showered over your entire body—drives off stickiness—gives you a feeling of exhilaration, like a cooling breeze. Its effects last for hours and its alluring fragrance of flowers lingers and lingers and l-i-n-g-e-r-s!

DRENE

Before: "What?" you say, "no special rinses; no vinegar, lemon or after-rinses to 'cut' the lather?" No—they are not necessary—just a thorough dousing in clear water! That's the marvelous part. Drene cannot leave unrinsable film on the hair to cover up natural lustre *as ordinary shampoos* do. Your hair is left radiant, silky, smooth. *Even dull, bleached or dyed hair becomes more brilliant, more natural looking after a Drene shampoo.*

After: Here is an amazingly easy way to reveal all the glamorous natural beauty that is hidden away in your hair. A way that leaves your hair without a trace of ugly film to cloud its charm and beauty —leaves it radiating with its full natural sparkle

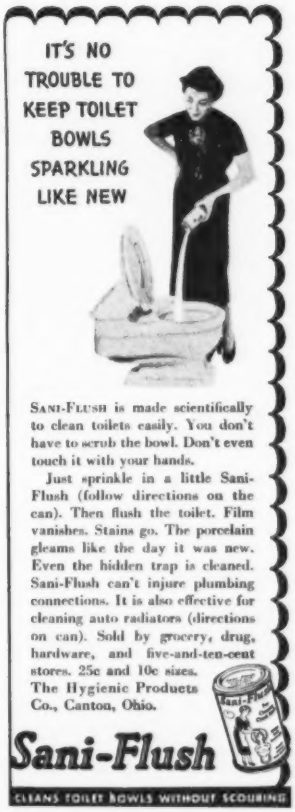
[1] *The material has been taken from a study by Nathan R. Abelson.*

THUMB-RULE COPY CHECKS AGAINST FTC INFRINGEMENT

In a recently published article, Alfred Stanford listed seven questions that the advertiser might profitably use to challenge his claims. Along with these questions, below, are advertisers, whose representations apparently failed to pass those checks.

1. *Are claims exaggerated for products that are non-curative in character?*
   Djer-Kiss, Mavis, Jergen's, Marchand's, Fasteeth, Taboo, Lifebuoy, Drene, Sani-Flush.
2. *Can any statement be construed as misleading?*
   —*or*
3. *Any misleading implications?*
   Drene, Jergen's, Lifebuoy, Mavis, Marchand's, Djer-Kiss.
4. *Any curative claims?*
   Cuticura, Fasteeth.
5. *Any unfair competitive claims?*
   Drene.
6. *Are all factual claims provable?*
   Djer-Kiss, Mavis, Cuticura, Marchand's, Drene, Jergen's.
7. *Are all matters of opinion clearly stated as such?*
   Jergen's, Sani-Flush, Marchand's, Drene, Fasteeth.

Before



After

Before-and-After Sani-Flush ads are almost identical in copy and layout, deletion of deodorant and germicidal claims being the major change.

▲ Before ▼ After

Before

After

Above: Djer-Kiss talc provides a good example of how advertisers can satisfy FTC and still retain a lot of "sell:" for example, "helps you begin the day dainty and cool;" "its effect lasts for hours;" "your skin seems soft as satin." At left, percentages without evidence were found objectionable.

and gleam—brilliant beyond your fondest dreams.

Special Drene Shampoo for Dry Hair leaves unruly hair thrillingly soft and manageable, so that it sets beautifully after washing. A single sudsing and thorough rinsing in plain water leaves hair gleaming and glistening in all its radiant natural brilliance and lustre.

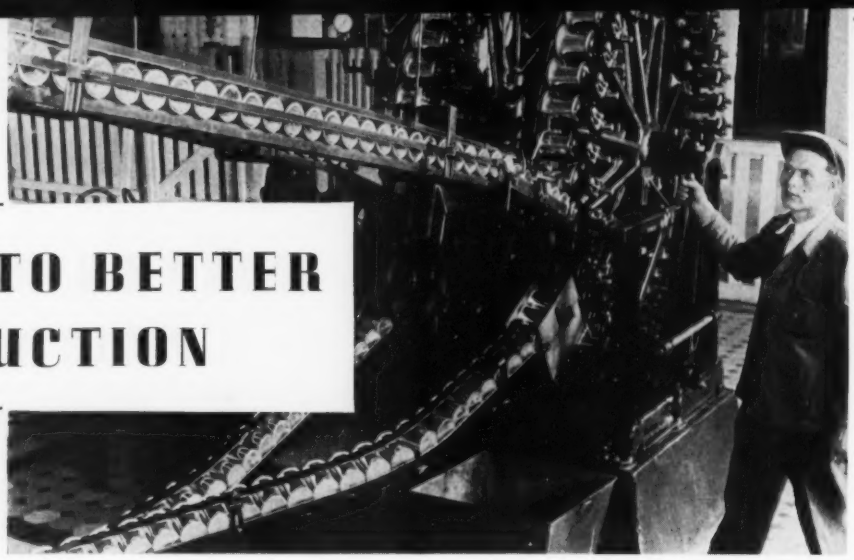
MARCHAND'S HAIR WASH

Before: *60% of all women were born blonde!* Don't let time darken your Hair. Tantalizing highlights and sunny tints in your hair mean youth. It's easy to keep that attractive "joy of living" look. *Marchand's Golden Hair Wash restores the natural radiant shades to your hair* that were yours when you were a little girl. This natural loveliness is easy to acquire at home.

After: If your blonde hair, has darkened and faded, don't resign yourself to your fate. Do something about it—before things become worse! A few treatments with Marchand's Golden Hair Wash will produce beautiful results. You can lighten your hair just a little at a time, do the job so skillfully that friends will compliment your cleverness.

The foregoing examples give a general idea of the type of advertising which satisfies the requirements of the FTC, acting under the Wheeler-Lea Act.

AIDS TO BETTER PRODUCTION



VIBRATING CONNECTIONS

Vibrating machinery often causes trouble in several ways, one of the most serious being broken pipe and other connections due entirely to the vibrations. In these instances, the vibration of the machinery is sufficient to cause crystallization in the metal and as a result early fracture occurs at the point of connection.

It has been found that breakages of this kind most commonly occur in connections that are made "too high." The solution that has been found best is to bring the pipe or part to be connected down to a position near the foundation and make the connection there. The explanation is that the amplitude of vibration is always least at the foundation and greatest in the parts of the machine that are most remote from the foundation, precisely as in a tuning fork.

The logical place for connecting pipes, cables, ducts, etc., is therefore as near the point of least vibration motion as practicable—near the foundation. This applies also to flexible types of connectors made specially to resist vibration, whether metallic or non-metallic, because even they have their bending limitations.—*W. F. Schaphorst, M.E.*

NOTES ON POWDERS

A classification of powder ingredients made by Janistyn according to their effect is interesting:

GOOD COVERAGE
- Titanium dioxide
- Titanium phosphate
- Zinc oxide
- Bismuth subnitrate
- Magnesium stearate
- Barium sulfate

EASILY DIFFUSED
- Talc
- Lycopodium
- Rice starch

GOOD ADHESION
- Kaolin
- Zinc stearate
- Magnesium stearate

GOOD ADSORPTION
- Magnesium carbonate
- Calcium carbonate
- Magnesium stearate
- Kaolin
- Starch
- Colloidal silicic acid
- Kieselguhr

Baby powders, dusting powders, etc., are usually perfumed with 0.5 per cent while face powders should contain 1 per cent or more perfume. The addition of over 2 per cent perfume is not considered advisable.

Uniformity of a powder mixture is ascertained by spreading it on white glazed paper, submitting it to slight pressure and examining it under a magnifying glass. Upon rubbing on the white paper, this should appear evenly colored with no streaks or dots. This test must also be repeated with moist paper.—*Schimmel Briefs.*

BOX MATERIALS

Choice of box materials for packing wrapped soap is dictated solely by considerations of cost or taste. If, however, the tablets are boxed unwrapped, the fact that they come into contact with the box material must not be overlooked. Normally, the lined board employed does not discolor the presence of soap; but the platforms which separate tablets packed in two layers, or the frames used to keep them in position, are often covered with the paper used as box-covering. If this is not chosen carefully, it may possibly fade at the points of contact with the soap. In some cases, the color even diffuses into the soap itself, producing an ugly spot particularly noticeable on a white tablet.—*Manufacturing Perfumer.*

CLOSURES

Through the years it has been our fortune to have, from time to time, unusually difficult products to package. Among them were the pioneer under-arm deodorant, the original liquid nail polish and one that due to oxidation and corresponding consumption of the oxygen of the entrained air actually pulled the liner down from its seat under the closure.

These and other equally exasperating experiences have resulted in abnormal closure consciousness. Anyway, some products observed on dealers' shelves are far from right. A friend recently insisted on inspection of his liquor miniature collection numbering over eight hundred. As usual, the lack of an effective seal on the overwhelming number had resulted in evaporative loss up to fully 80 per cent of the contents.

True, aside perhaps from after-shave lotions, the cosmetic manufacturer is not interested in packaging 45 to 50 per cent alcoholic solutions in 1.6 ounce bottles with 18 millimeter caps. Neither is he interested in having his product collected and held—he wants it consumed.

THE AMERICAN PERFUMER

Flavors

INDUSTRY SECTION

A section designed to chronicle the activities and to epitomize the spirit of energy, the new viewpoint and the desire of the flavor products industry to be in the forefront as ways improve and methods change

MAKING EMULSION FLAVORS

Various emulsifying agents employed and results . . . Advantages . . . The problem analyzed and field for further research suggested

by H. STANLEY REDGROVE*
B.SC., F.I.C., F.R.H.S.

PLEASANT flavors are given to otherwise insipid articles of food and drink by the incorporation in them of aromatic material of either natural or synthetic origin. The most important group of natural aromatics consists of the essential oils, obtained, from the rinds of citrus fruits by expression, and, more generally, from a vast number of aromatic seeds, barks, roots, leaves, flowers, etc., by the process of steam-distillation. The natural and synthetic aromatics do not differ from each other radically. They all belong, chemically speaking, to the vast army of carbon compounds, especially important as flavoring materials being esters, alcohols and aldehydes; but, whereas the synthetics are, so far as manufacturing processes make possible, pure (that is, individual) substances, the essential oils are highly complex mixtures, and owe the fineness of their flavors to this complexity.

Of course, in many instances, the flavoring may

*Author of *Spices and Condiments*

be effected by means of the natural aromatic (spice or herb) containing the essential oil, rather than the extracted or distilled oil itself. Thus, sausages may be flavored with ground sage leaves, rather than with the essential oil obtained from these leaves by distillation; puddings and cakes may be flavored by means of ground cinnamon and other spices rather than with the corresponding essential oils; vanilla ices may be given the characteristic vanilla flavor by incorporating in them a little chopped vanilla bean, and so on. But this method is not always practicable, and, indeed, is seldom the best method. Sometimes, owing to the presence in the natural aromatics of substances having a bitter or astringent taste, the corresponding essential oil has a definite advantage as a flavoring material owing to its freedom from this defect. Thus, the true lemon flavor is better represented by a fine hand-pressed lemon oil than it is by lemon peel, which, in addition to the lemon flavor has a bitter taste; and clove and cinnamon bark oils are free from the astringency of the spices from which they are distilled due to the presence of tannins in the latter.

Moreover, the incorporation of a ground spice or other natural aromatic in an article of diet, or especially in a drink, is not always practicable. In many cases, proper dissemination of the flavoring material is impossible.

PROPER DISSEMINATION OF FLAVORING

The latter difficulty arises also with essential oils and synthetic aromatics. And it arises because of their extreme potency.

How high this potency is may be judged from the following table quoted from *Campbell's Book: A Textbook on Canning, Preserving and Pickling*, by C. H. Campbell, New York, 1929, which gives the (approximate) quantities of various essential oils equivalent, in each case, to 100 pounds of the spice from which they are obtained:

Spice	Wt. of Essential Oil in lbs.
Allspice	2½
Cardamon seed	3
Cassia bark	1
Celery seed	2
Cinnamon, Ceylon	½
Cloves	15
Coriander seed	¾
Dill	2½
Fennel	2½
Mace	3½
Mustard seed	¼
Nutmeg	5
Star-anise	1½
Turmeric	4

ESSENTIAL OILS NECESSARY

For flavoring use, therefore, very minute proportions of essential oils are necessary, which is even more emphatically the case with synthetic aromatics; and the proper dissemination of a minute proportion of an essential oil or aromatic synthetic in a mass of food material, or even in a beverage, is not easy. For domestic use, essential oils and synthetics are quite out of the question, since, owing to the small quantities of foodstuffs handled at a time, less than a single drop of an essential oil or synthetic would be more than enough.

Hence the need for *diluted* products, known as "flavoring essence" in Great Britain, or more shortly, as "flavors" in the United States.

SOLVENT EMPLOYED

On account of its innocuousness and high solvent action on the classes of chemical substances involved, ethyl alcohol is the solvent most generally employed for the purpose. Flavoring essences may be made either by dissolving the essential oils or synthetic aromatics in the spirit, or, in some cases, by direct extraction of the oil from the herb or spice in question by maceration in spirit, or by a combination of both methods.

Indeed, were it not for the fact that ethyl alcohol is a dutiable article, it is possible that no further search would be made for other solvents, so ideal for the purpose is it, generally speaking.

LIMITATIONS OF ALCOHOL SOLVENT

There are exceptions. For example, flavoring essences made with ethyl alcohol, owing to their high volatility, are not ideal for flavoring boiled sweets. In this case, flavoring compounds made with the aid of a bland tasteless oil as the solvent are better adapted for use.

One universally adopted method of reducing costs is to dilute the spirit with as high a proportion of water as is permissible. The proportion added, other things being equal, will of course depend on the solubility of the essential oils or synthetic aromatics used, some of which are readily soluble in well-diluted spirit, while others are not.

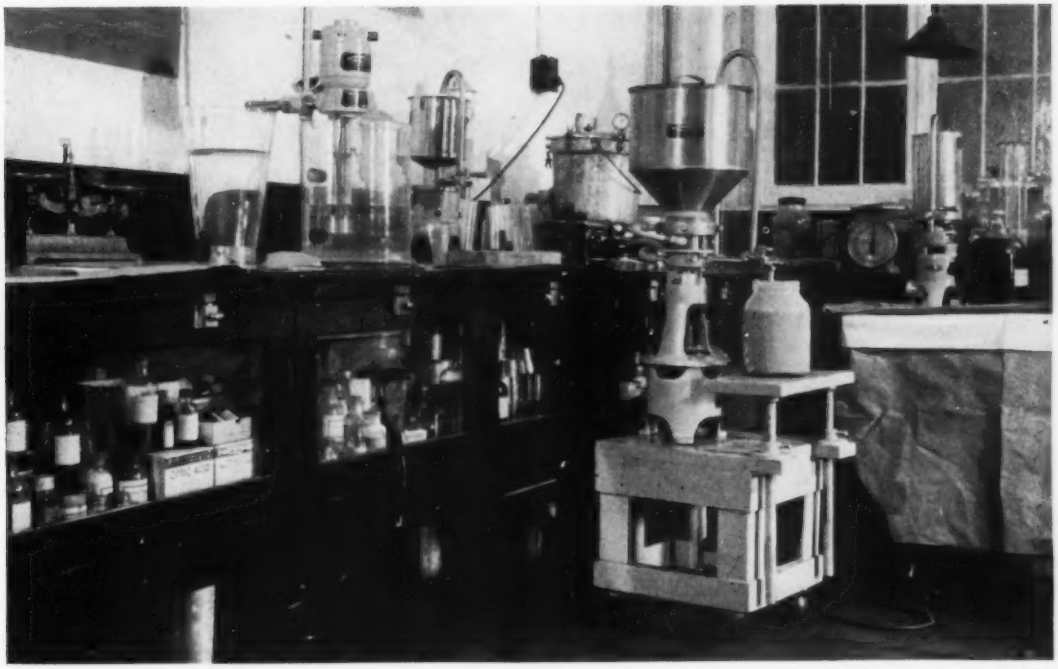
ADDITION OF GLYCERIN

In certain instances the solvent action of diluted spirit can be enhanced by the addition of glycerin, which is commonly used, for example, in the manufacture of vanilla essence. It has also been stated that the addition of sodium carbonate enhances the solvent action of diluted spirit on vanilla.

Other solvents have been proposed for use, for example, *iso-propyl* alcohol and certain glycols. These proposals are not regarded with favor in the United States, owing to the toxicity of these solvents. Certainly, the glycols, with the possible exception of 1,2-propylene-glycol, are, on account of toxicity, totally unsuitable for use; but although *iso*-propyl alcohol is certainly more toxic than ethyl alcohol, it may be questioned, in view of the small proportions of flavoring essences incorporated in foodstuffs and drinks, whether its employment is really attended with danger. But its unpleasant taste does provide a strong objection to its use.

The question arises: Why not use water, which of all solvents known to science is the cheapest?

The answer is: Because essential oils and syn-



Photos courtesy of Eppenbach Inc.

Passing emulsions through homogenizers reduces size of dispersed droplets; type of machine used by Fritzsche Brothers

thetic aromatics are not sufficiently soluble in water.

But it is not a complete answer, because it is possible to prepare homogeneous mixtures of two liquids each insoluble in the other by the process of emulsification, in which one liquid, the disperse phase, is broken up into tiny globules and kept in more or less permanent dispersion in the other liquid or continuous phase.

SUITABLE EMULSIFYING AGENT

In order to bring about this desirable state of affairs, the incorporation of a suitable "emulsifying agent" which will prevent the dispersed droplets running together, is essential; and best results can be obtained by, in addition, passing the emulsion through a suitable homogenising machine, which will reduce the size of the dispersed droplets to a desirable minimum.

Numerous emulsifying agents are available today for the production of various types of emulsions. For example, good and stable emulsions of oils in water can be made by the aid of triethanolamine soaps, widely employed in the cosmetic industry. Unfortunately, the tastes of these emulsifying agents put them out of court for use for the purpose at present under consideration, and we are thrown back upon such old-fashioned materials as gums and allied materials.

In my opinion, there is here a field for further research having as its object the production of tasteless and flavorless edible emulsifying agents for the production of emulsion flavors. The following notes are given mainly as an incentive to such research.

In pharmaceutical practice, gum acacia is commonly used as an emulsifying agent for essential oils. In general, one part of the powdered gum suffices to emulsify two parts of an essential oil. These are rapidly mixed in a dry mortar, and then a quantity of water equal to twice that of the gum employed is rapidly added, and the whole triturated lightly and briskly. This emulsion is then diluted.

Unfortunately, emulsions made in this way are not particularly stable, but passing through a homogenising machine helps.

Perhaps the most interesting piece of research on the subject conducted in recent years was that by Messrs. W. F. Whitmore and R. E. Lineham, of which the results were published in Volume 21 of *Industrial and Engineering Chemistry* and reprinted in *The Perfumery and Essential Oil Record* for October, 1929.

This research had as its objective the production of *transparent* emulsions of essential oils. As the authors state, "besides an improvement in stability, it is highly desirable to produce transparent emulsions instead of the usual opaque variety, since a homogeneous looking product is always more satisfactory than a translucent or opaque one." Perhaps, in the case of emulsions to be sold to food manufacturers, the need for transparency is not very great, but it must certainly be regarded as an important sales-factor in connection with products intended for ultimate sale to housewives for home utilization.

The object of the research was achieved by using invert sugar, or a mixture of two parts of invert sugar and one part of sucrose, which was added to the water in sufficient amount to make the refractive index of the continuous phase the same as that of the dispersed oil.

To discover the best emulsifying agent, or pep-

tising agent, a series of experiments was conducted on orange oil.

The most satisfactory results were obtained with gelatin, emulsions made by its aid showing greater stability than those made by the aid of gum acacia. However, difficulty was experienced with invert sugar, which gave rise to graining, owing to the crystallizing out of dextrose; but this was overcome by using the mixture of invert sugar and sucrose.

RESULTS WITH ORANGE OIL

The authors report that a five per cent emulsion of orange oil containing a sufficient quantity of this sugar mixture plus 0.25 per cent of gelatin showed no indications of breaking or graining over a period of eleven months, a period sufficiently long for commercial purposes.

Vanilla Bean Market

BY RUFINO CAGIGAL, JR.

A DECIDEDLY stronger position has been observed in all the primary markets. Prices have advanced just a little.

Reports from Madagascar indicate the crop will not be any larger than the past one due to the fact that during the time of curing many curers and their helpers had been mobilized, and had to abandon or reduce the scale of their usual curing. Another report that stirred up the market is that the future crop could not be much larger due to the poor flowering. The flowering in Madagascar is now in bloom.

The drop in exchange of the Mexican peso for a while gave the importers the impression that the market was going to ease, but this reduction was offset immediately by higher export taxes and by the speculators in Mexico raising prices to balance the difference.

The demand during the month of December was very poor, but heavy buying is anticipated during the first three months of 1940. Spot prices have not varied.

Bill to Lower Alcohol Tax

IT is expected that the bill sponsored by Representative Knutson of Minnesota in Congress last May providing a reduction in the alcohol tax, on which no action was taken, will be reintroduced in a modified form fair to all branches of the industry.

The Alcohol Tax Unit, Bureau of Internal Revenue, Treasury Department, has undertaken a revision of present Regulations 3, relative to the production, distribution, sale and use of industrial alcohol. The revision will not be completed until early in the Spring. The present regulations have been in effect since April 1, 1931.

Various measures have been proposed throughout the states to regulate the manufacture, sale and use of industrial alcohol, both ethyl and denatured, and in some cases the product was actually subjected to the danger of being taxed as a beverage.

States with Food Laws

ACCORDING to a compilation by John S. Hall and C. L. Fardwell, the following states have passed new state food, drug and cosmetic acts or have amended their old acts:

New acts—California, Connecticut, Florida, Indiana, Louisiana, Nevada and North Carolina.

Amended acts—Arkansas, New Jersey, New York, North Dakota, Oklahoma, West Virginia, Virginia and Wyoming.

Papantla, an ancient town tucked away in a valley in Mexico forty miles inland, is the center of the vanilla bean industry

Bottled Soft Drink Sales $1,000,000,000

Still far from consumption saturation . . . . How the industry operates and sells its products

by S. R. KAPLAN

TO most people, the mention of bottled soft drinks calls to mind such names as Coca-Cola, Dr. Pepper, Pepsi-Cola, Hires Root Beer, Canada Dry, 7-Up, Royal Crown Cola, Orange Crush, or Nu-Grape, to mention some of the more widely distributed products. True, they are important factors, but by no means the whole story.

SIZE OF INDUSTRY

Today, the bottling industry in the United States numbers approximately 8,000 active bottling plants, more or less evenly distributed throughout the country. Pennsylvania has about 750 plants; New York, 600; Texas, 450; Illinois, 420; California, 360; Ohio, 330; Massachusetts, 290; New Jersey, 280; Wisconsin, 260; Missouri, 250, and Georgia, 220 plants.

In an era of intense industrial development, the bottling industry is one of the most highly mechanized. This enables the relatively small number of soft drink plants to turn out an annual production, which figured at the selling price of 5 cents each, has a retail value of nearly a billion dollars.

Plants may vary in size and capacity, but they use similar or identical manufacturing equipment. In order to understand essential factors in the industry, let's have a quick look at the operations of a bottling plant.

OPERATIONS OF BOTTLING PLANT

Inside is an array of gleaming, stainless steel equipment. Largest single piece of machinery is the bottle washer (capacities range from 480 bottles an hour to about 8,450 bottles an hour). Grouped around this big unit are a number of smaller machines, all connected by moving conveyor lines. Bottles emerge from the maw of the bottle washer on to the conveyor line, which feeds them to a unit with a number of nozzles (the filler).

HOW FLAVOR IS ADDED

A predetermined amount of syrup (a blend of sugar, extracts, flavors and other ingredients) is measured into each bottle. The conveyor carries them on to another unit where they are filled with carbonated water. The bottles continue to the head of another machine where quickly and automatically the crown cap is affixed. Some of the more modern plants, however, in order to effect a thorough mixture of the contents, subject the bottles to another mechanical unit, the "beverage mixer," which turns the bottles over vigorously a number of times. Since machinery covers every step in the production line, not a single hand touches the bottle from beginning to end, until after the bottles are placed in cases and conveyed to waiting delivery trucks. However, constant supervision of the process is necessary, particularly at the end of the line, where trained inspectors, employing special inspection devices, check over the bottles and their contents for breakage of bottles and for any "foreign" ingredients.

The only essential and important difference in the thousands of products offered on the market is the quality and taste of the flavors. Here, the industry is unlike many other food fields, where secret production processes and methods give one product superiority over another.

PRODUCTION OF SYRUP

In the production of the syrup, the operations vary. The Coca-Cola Co., for example, maintains in the United States eight syrup factories which supply finished syrup to bottlers and soda fountains, to which only carbonated water must be added. Other bottlers receive from the factories a finished beverage base or concentrate which is mixed at the bottling plant with a simple sugar syrup before going to the filler. In still other bottling plants, the syrup room is the actual "Heart" of the plant, for there the actual mixing and blending of flavors and syrups takes place; individual formulae are perfected for the preparation of beverage flavors, which contain such ingredients as flavor concentrates, essential oils, caramel coloring and other materials.

The taste, keeping quality, uniformity and cost of the finished drinks have been the bottler's prime considerations. Yet, of late, other important functions have been added to the modern plant, particularly the task of improving public relations. The industry's newer plants are as attractive outside as they are on the interior. They feature large plate glass windows through which the bottling machinery can be seen in motion; groups are invited to visit the plant for an explanation and inspection of the bottling process.

VARIETY OF FLAVORS

With the exception of the nearly 1,100 Coca-Cola bottling plants, only a minor few of which bottle a line of soda water flavors in addition to Coca-Cola, the average bottling plant is capable of turning out a variety of products ranging from reliable old ginger ale (the industry's first flavor—an importation from the Continent early in the 19th century) to well-known fruit flavors like

orange and cherry and relatively new flavors of every description, among which are maté and papaya drinks. They number over 30 different types of flavors in all. Bottle sizes commonly used are 6, 7, 8, 12, 16, 24, 28, and 32 ounces. By far the bulk of the business, however, is in the 6 and 7 ounce sizes, although the 12 ounce bottle has been a trade development in recent years that ranks it in second place. Next come the 28 to 32 ounce "home packages" running third in sales popularity.

Remember that the industry's products are packed in glass bottles which cost about four cents each, or more than the cost of all the ingredients. That makes it absolutely essential for bottles to be returned to the individual plants whence they came. It is accomplished by a system of deposits involving retailers and consumers.

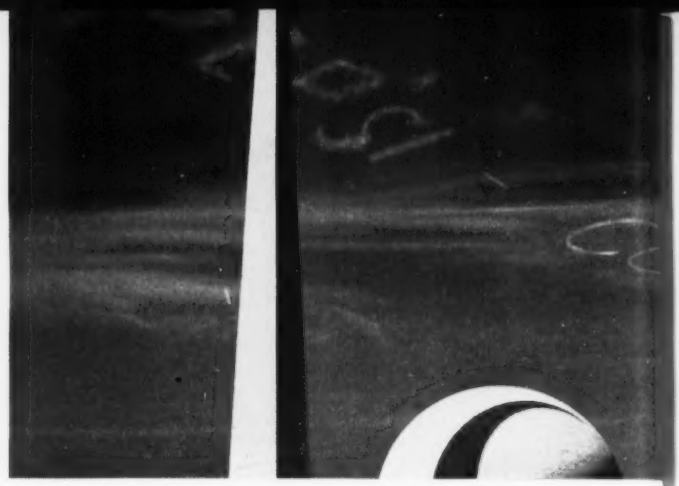
The parent companies are exceedingly important factors in the bottling business—being associated with practically 70 per cent of the country's bottling plants. Eleven hundred are Coca-Cola bottlers, 500 are Pepsi-Cola, 500 are Royal Crown Cola bottlers, to mention only three of the many "franchise" groups. These parent companies are the industry's most active advertisers, and they direct sales and promotional plans for hundreds of member plants throughout the country. Parent companies do no bottling—they simply supply a line of concentrates—or, as in the case of Coca-Cola, syrup to the bottlers.

LEADING BOTTLED SOFT DRINK COMPANIES

Companies and Products

American Beverage Corp., Brooklyn, N. Y.
(Dr. Brown's Drycola—Cel-Ray)
*Buffalo Rock Co., Birmingham, Ala. (Buffalo Rock)
*Canada Dry Ginger Ale, Incorporated, New York City (Canada Dry)
*Citrus Products Co., Chicago, Ill. (Kist)
*Cleo Syrup Corp., St. Louis, Mo. (Cleo-Cola-Vess)
*Clicquot Club Co., Millis, Mass. (Clicquot Club)
*The Coca-Cola Co., Atlanta, Ga. (Coca-Cola)
*The Dr. Pepper Co., Dallas, Tex. (Dr. Pepper)
*Flavorex, Inc., New York City (Sun Spot-Step Up)
High Rock Ginger Ale Co., Baltimore, Md.
*Charles E. Hires Co., Philadelphia, Pa. (Hires)
Hoffman Beverage Co., Newark, N. J.
*The Julep Co., Chicago, Ill. (Howel's)
*Lime Cola Co., Montgomery, Ala. (Lime Cola)
*Mission Dry Corp., Los Angeles, Cal. (Mission Dry)
*Monarch Manufacturing Co., Atlanta, Ga.
(New Yorker, Town Hall, Mingo, Cascade, Esquire)
The Moxie Co., Boston, Mass.
*National NuGrape Co., Atlanta, Ga. (NuGrape)
*Nehi, Inc., Columbus, Ga.
(Nehi-Royal Crown Cola, Par-T-Pak)
*Nesbitt Fruit Products, Inc., Los Angeles, Cal.
*The H. R. Nicholson Co., Baltimore, Md.
(Nichol Kola)
*Orange Crush Co., Chicago, Ill. (Orange Crush)
*The Pa-Pi-A Corp., New York City (Vanti Pa-pi-a)
*The Pepsi-Cola Co., Long Island City, N. Y.
(Pepsi-Cola)
*Red Rock Bottlers, Inc., Atlanta, Ga.
*Richardson Corp., Rochester, N. Y.
(Liberty Root Beer)
*Seminole Flavor Co., Chattanooga, Tenn.
(Double Cola)
*The 7-Up Co., St. Louis, Mo.
(7-Up)
*Try-Me Beverage & Compound Co., Inc., Birmingham, Ala. (Try-Me)
White Rock Mineral Springs Co., Waukesha, Wis.

*Parent Companies



An example of spirited competition in the soft drinks field, Pepsi-Cola sky-writing soared above the Fair last summer; Coca-Cola had the concession

It has long been an accepted fact in the bottling business that intense competition between major franchise drinks always results in increased sales *for all* parties concerned.* It is also true that the heavy advertising expenditures made by the larger companies, also help the smaller non-advertising bottler.

Trade authorities point out that per capita consumption is far below what it should be. The largest franchise company in the United States continually drives for an increase of per capita consumption by each of its member plants awarding special prizes to bottlers who achieve consumption in their territories of over 100 bottles per year, per person.

The sale of bottled soft drinks is not as seasonal as many believe. The trend is obviously toward establishing a steady all year 'round sale, and merchandising efforts by the bottlers are constantly being directed toward leveling out their sales curve.

The bottling industry's major outlets are the grocery stores, drug stores, delicatessens, stationery stores and sundry retail points. Other important sales spots, however, are resorts, roadside stands, recreation and sport centers like baseball parks.

The average number of outlets for a plant is 2000 to 3000. Larger plants have as many as 10,000 outlets. The bottler maintains contact with these outlets through his salesmen, who often are also the drivers delivering the goods, and are called "driver-salesmen." This is the usual policy—to combine the selling and delivering functions. It is the difficult and varied tasks of the driver-salesmen to sell, build good will, supervise and install "point-of-sale" advertising, and also effect speedy deliveries in a route which may number over 500 individual accounts. Sales training methods are relatively new, and their use, with apparent results by the larger and more progressive bottlers, has given the smaller bottler an incentive.

A new and important development, the self-vending cooling unit, has opened a number of new out-

lets, including schools and factories. Dispensers hold from 29 to 104 bottles, cost $55 to $325.

Another integral factor in the present rise in sales has been the introduction and promotion of the bottle cartons. These packages, holding six small bottles, or three quart bottles (or any combination of bottle size and quantity)—have appreciably increased the unit of sales at retail outlets, particularly in the case of those beverages designed for home consumption.

Correct Packaging of Extracts

IN the packaging of extracts or flavors, a combination of two factors must be given careful consideration: (1) the bottle or glass container, and (2) the carton—in the event the bottle or glass container is placed in a carton then the relationship of the bottle or glass container to the carton.

Unquestionably the old-style panel bottles are taboo, as likewise are bottles with long necks; also bottles that are not truly representative of the common and usual style used in the packaging of extracts or flavors which, by their construction, are made to appear as containing twice or more the amount; bottles with excessive sloping shoulders extending from the base to the neck, as likewise bottles and glass containers wherein the side walls and base are of unusual thickness of glass, which thickness is intended primarily to make the bottle appear to be of greater capacity than it actually is, and therefore deceptive.

In reference to cartons, the Department of Agriculture has taken the position that they must be truly representative of the size of the container placed therein; that the bottle or glass container must fit securely against the sides of the carton, granting a small tolerance in the width as likewise the length. The Department has officially ruled, in reference to the length of the carton, that it must be not more than one-eighth of an inch longer than the container itself.

The foregoing basic principles are likewise applicable to other articles of food sold in containers and it must be remembered that the Department has taken the specific position that misleading containers cannot be rectified by any form of labeling, so that each packaged food or carton must stand on its own individual merits.

It will therefore behoove manufacturers in the sale of extracts or flavors and other food products in cartons to ascertain as to whether or not the carton is reasonably filled and representative of the amount of food contained therein; that if in envelope, inner-carton form, etc., the contents of the envelopes, inner-cartons, etc., must reasonably fill the carton.

A committee of the Flavoring Extract Manufacturers Association conferred with officials of the Food and Drug Administration last month in order to secure more specific information regarding deceptive containers.

While officials of the Food and Drug Administration would not approve any specific type of glass container, it was indicated that in their opinion certain types of glass containers as submitted by the Glass Container Association and likewise bottle manufacturers were in conformity with the intent and purposes of the act. It is therefore recommended that in negotiating with bottle manufacturers, the type of glass containers that have been submitted for approval be requested.—*John S. Hall.*

Flavor License Laws in 27 States

A COMPILATION of state license laws relating to the manufacture and sale of soft drink extracts, flavors, syrups, etc., and finished carbonated and still beverages has been made by John S. Hall. The compilation is in a form readily understandable by the layman; only the relevant parts of the laws are given; and the report's terseness makes possible a grasp of the law of any particular state as well as a quick survey of the whole picture. The compilation is complete to January 1, 1940.

As of this date the following states only have laws of the nature referred to: Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia and Wisconsin.

The laws referred to do not affect the manufac-

ture and sale of extracts, flavors and syrups intended for culinary and further manufacturing purposes other than the production of a finished beverage.

May go to Court on Color

IT is probable that the controversy over interpretations and application of the coal tar color sections in the Federal Food, Drug & Cosmetic Act may have to be referred to the federal courts for a judicial determination.

The officers of the National Manufacturers of Soda Water Flavors, and the National Association of Manufacturers of Fruit and Flavoring Syrups have been negotiating with officials of the Food and Drug Administration with the hope of securing a satisfactory compromise or a complete exemption of small batches of fabricated food colors made from the use of certified primary colors or mixtures thereof.

At the last hearing the flavoring products industry was represented by Dr. Clarke E. Davis, George M. Armor, George E. Burnett, L. P. Symmes, Dr. B. H. Smith, F. W. Green, John D. Nantz, Garret F. Meyer, William C. Bainbridge, Arthur Vogel, Leo Green, L. H. LaRue, Dr. John Glassford and John S. Hall.

Suggested and proposed amendments to the certified coal tar color regulations were considered and Dr. Davis testified as to the activities of companies in the compounding and mixing of fabricated food colors. Suggested findings of fact and suggested amendments were submitted.

In the event of an adverse position a petition will be immediately filed with the Secretary of Agriculture requesting that the coal tar color regulations promulgated on May 9, 1939, as amended, be further amended, and references contained therein which require the re-certification of a fabricated food color made from a certified primary color deleted.

The question presents itself as to whether or not fabricated food colors made from certified primary colors can be sold for further manufacturing purposes without re-certification during the interim, provided such articles are labeled as fabricated food colors and other labeling requirements as provided for in the Federal Food, Drug and Cosmetic Act are plainly set forth in the labeling.

It is the opinion of counsel for the associations that a fabricated food color made from a certified primary color or mixtures thereof, which bears a label with the,

net contents (provided the contents is more than one-half ounce avoirdupois or more than one-half fluid ounce);

name of the article—yellow (etc.) fabricated food color;

and immediately thereunder a list of the ingredients contained in same; such as, (approximate percentage of certified color) —— per cent FD&C Green, No. I, water, glycerin, alcohol, [or of a —— per cent mixture of FD&C Red No. I, FD&C Red No. II, and FD&C Yellow No. VI] (etc. —— depending upon the vehicle with which the coal tar color is held in suspension);

and then immediately thereunder: "Manufactured For and Packed By" or "Manufactured For and Distributed By" and the name and address of the company, will suffice.

A significant paragraph in Dr. Davis's well considered argument follows: "It is a well-established principle of law that there can be no pyramiding of fees; in other words, the Federal Food, Drug and Cosmetic Act of 1938 (Sections 406 (b) and 706, and regulations promulgated thereunder), require that primary coal tar dye manufacturers submit same to the Food and Drug Administration and conform to the regulations relating in part to labeling requirements and payment of fees prior to the selling or offering of same for sale to the consumer, for use in foods, drugs and cosmetics. Therefore, the manufacturer of coal tar dyes is required to conform to the Federal Food, Drug and Cosmetic Act of 1938 and the regulations promulgated thereunder, which in part requires the payment of a specific certification fee. To likewise require the payment of a certification, or re-certification fee, from the fabricator or producer of a fabricated food color containing, in part, a certified primary coal tar color, is clearly the pyramiding of a fee, which is null and void."

Legislation Likely in States

THE Flavoring Extract Manufacturers Association Legislative Committee has issued a résumé of the 1940 legislative outlook.

It shows that the following states began regular sessions this month: Kentucky, Mississippi, New Jersey, New York, Rhode Island, South Carolina and Virginia. Louisiana begins its regular session May 13.

It is expected that Kentucky, Mississippi, Rhode Island and South Carolina, which have no new state food, drug and cosmetic acts, will consider bills this year.

F.E.M.A. Convention Plans

PLANS for the largest convention ever held are being made by the Flavoring Extract Manufacturers Association, which will meet at the Hotel Drake, Chicago, Ill., June 24, 25 and 26.

The yeoman service that has been done by the Standards Committee and the Alcohol Tax Reduction Committee, as well as the work of the executive board and the various other committees in the past year, will provide much stimulating matter for discussion. As all of the matters are of vital importance to the industry; and as the association makes a practice of discussing the most relevant problems, every member should arrange to be present. E. L. Brendlinger, secretary, Norristown, Pa., is prepared to make hotel reservations now. More detailed news of the business and social program will be given later.

Packaging PORTFOLIO

CORDAY: Inspired by Rodin's sculpture, this new perfume is called Possession. It is offered in a beautiful flask of crystal.

PINAUD, INC.: Compartments in The Jaunt, men's kit in burgundy pigskin leatherette, hold shaving aids, hair tonic.

LENTHERIC, INC.: A hunt motif in green on a beige background now decorates the men's set enclosing three items.

SOLON PALMER: Dress Parade, available in two sizes, gives a regimental appearance with its bottle and sentry box package.

Test Packages For Sales Appeal To Consumers

Consumers' view of package offers aids to manufacturers in determining degree of success for package design

TODAY'S packages should do a four-fold job: gain attention, arouse desire, stimulate buying and bring "repeat" purchases. Basically, a successful package must do a sales job in print, telling the prospective consumer of the advantages and satisfaction he will gain from ownership and use of the product.

In the cosmetic industry, the manufacturer recognizes that his package must appeal primarily to women because the products usually are purchased by or for them. Thus, the package must be attractive and by its subtlety and femininity as well as its usefulness, it should encourage the prospective consumer to stop, examine, desire and purchase.

To determine whether or not a package is doing the best kind of selling for a manufacturer, consider it from the consumer's viewpoint:

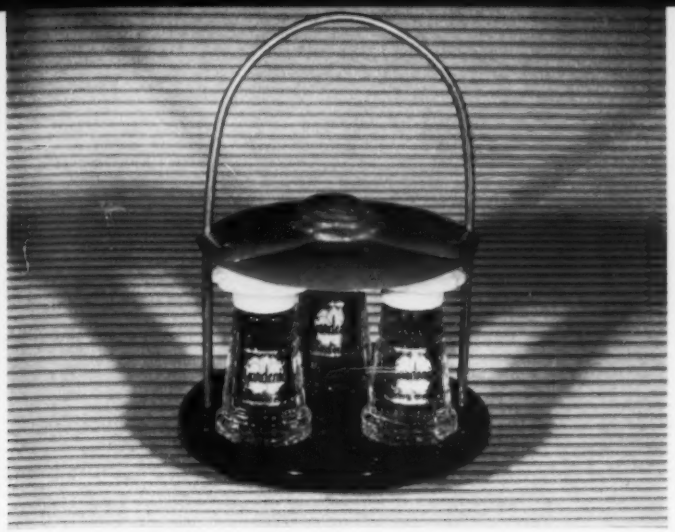
1. Does the consumer need the product?
2. Is this type of product known generally?
3. Why is this product better than competitive ones? Does it lack advantages possessed by its competitors?
4. Is the product readily available in retail stores? Is it attractively and openly displayed?
5. Do the appeals in the advertising arouse interest and stimulate desire for ownership and use?
6. Is there adequate information on the package or enclosure to enable the consumer to obtain the maximum satisfaction in using the product?
7. Is there a trade mark, or other distinctive symbol, which enables the consumer to recognize the package, irrespective of change in design?
8. Is the price in line with prices for similar size competitive products?
9. Is the package design used for a group of products, so that customers will recognize the various items in the group and be encouraged to buy, having used one or more previously?

From the answers to these questions will come the decision as to whether or not the package is doing the best kind of selling job for a product.

DORALDINA COSMETICS, INC.: Dancing figures are imprinted on the package of this new toilet water, La Conga.

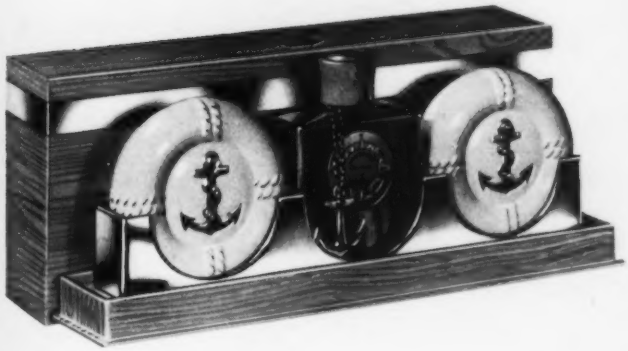
FABERGE: An After Bath cologne for men is offered in flacons with screw-on tops and coasters of saddle-stitched calf leather.

POTTER & MOORE: Talc, shaving soap and after shaving lotion are offered as one group in the Mitcham Lavender line.

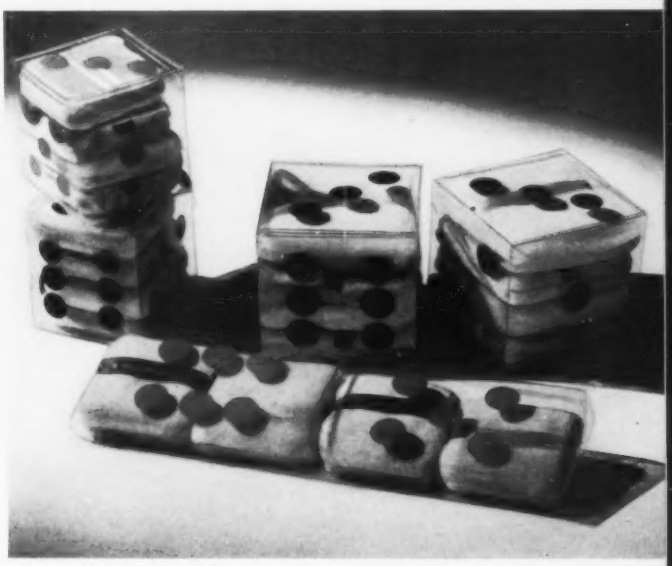


IRRESISTIBLE, INC.: Three tiny bottles fit into the black base and are capped with a red top in this novel packaging.

BOURJOIS, INC.: Unique styling with the name applied directly in black marks this bottle. Cap by Armstrong Cork Co.



WRISLEY: Two roped cakes of bath soap with anchors embossed flank a bottle of cologne in this nautical set, Nor'easter.



HYGIENOL PRODUCTS: Transparent dice and domino cases contain pastel color powder puffs. Distributed by Maurice Levy.

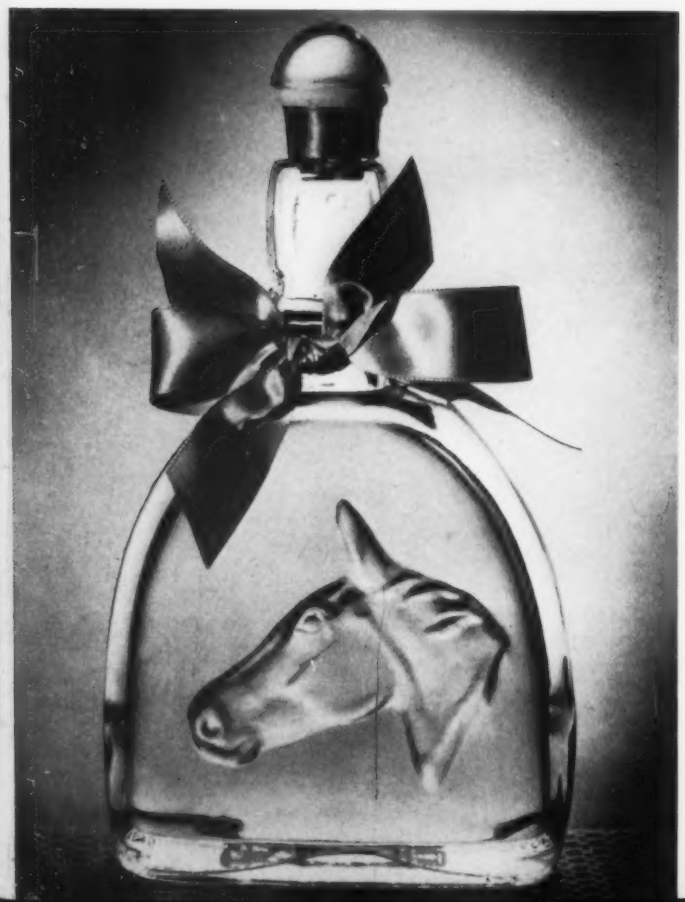
MYSTIC LABORATORIES, INC.: A wide mouth jar whose cap carries all the product data is adopted for Mystic Cream.

NORTHAM WARREN: New pink and white packages hold Cutex hand cream. One is a tube for traveling; the other, a jar.

CHARLES OF THE RITZ: Winter, a new fragrance for cold weather wear and furs, is offered in a triangular bottle.

LEIGH COSMETICS, INC.: A triple-idea package features Risque perfume and a satin sachet, in a white kid trinket box.

PARFUMS CHARBERT INC.: Bracer Bath, perfumed with Grand Prix, comes in a spur-shaped bottle with glass hobnails.

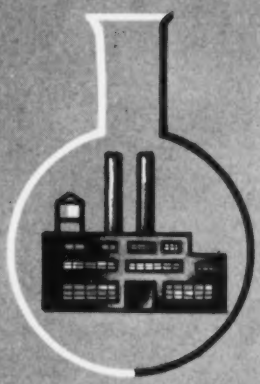


MIAHATI PERFUMES: New Hawaiian scents, Pikaki, Honolulu, Soul of Flowers, Waikiki, appear in translucent bottles.

THE AMERICAN PERFUMER

Soap

INDUSTRY SECTION



A section devoted to the manufacture and sale of toilet and laundry soap and soap products covering new raw materials in soap making and new uses for old raw materials, as well as new processes and developments

USE OF ZINC OXIDE IN SOAP MAKING

Improves Appearance of High Grade Toilet Soaps . . . A Fixative for Color and Perfume . . . Improves Emollient Characteristics

by PAUL I. SMITH

ZINC oxide, commonly known as zinc white, is well known to the manufacturer of cosmetic and pharmaceutical preparations and it is highly esteemed on account of its opacity, high degree of whiteness, good covering power and also valuable antiseptic properties. In the production of high grade toilet soap, zinc white is also extensively used to improve the appearance of the finished tablets. Whilst achieving a high degree of pigmentation, this additive also tends to decrease the percentage of free fatty acids present in the soap by reacting with them to form an insoluble zinc soap which is uniformly mixed throughout the body of the soap. It is interesting to note that the pigment mixes very well with a properly made soap and no difficulty is experienced in mixing and milling the compounded base.

A FIXATIVE FOR COLOR AND PERFUME

The addition of zinc white to toilet soap is also useful in another connection, namely as a fixative for both color and perfume. Poucher recommends the oxide for stabilizing the color in colored soaps and it is recognized by soapers that this recom-

mendation is fully borne out in practice. Dr. A. Foulon in an article in *Chemical Products*, August, 1939, states that "perfumes incorporated with soaps are firmly retained . . . it also prevents to some extent the falling off in perfume strength of even the best toilet soaps in use which is frequently observed." Dr. Foulon goes on to say that the "fixative power of zinc white for odors is based upon its surface activity induced by the capillary effect of its surface. The active surface of zinc white, inherent in the nature of the pigment, but also conditioned by the modern technique of manufacture, enables it to draw foreign substances into its capillaries, i.e., to bind them by adsorption. This effect is reinforced in zinc white by the snow flake structure of the individual particles."

ZINC WHITE IMPROVES EMOLLIENT PROPERTIES

The usefulness of zinc white depends to a large extent on the nature of the soap stock, that is, whether it is designed to produce a moderately hard soap or one that is inclined to be somewhat softer. The properties of the pigment can best be exploited if the soap is on the hard side, in which case it will tend to improve considerably its polish and general appearance. The addition of zinc white makes no difference to the detergent properties of the soap, but tends to improve its emollient characteristics, although if the percentage of free zinc soap is high, due in the first instance to the presence of abnormal amounts of free fatty acids, the lather may become rather sticky and objectionable. Trouble may also be caused by the use of inferior grades of the oxide, especially if lead or iron salts or oxides are present. These impurities have been known to be responsible for spots in the soaps, such spots showing themselves after storage. The presence of metallic impurities is also liable to cause trouble in the proper development of odor and may be responsible for undesirable changes in the perfume bases. For the highest quality white toilet soaps it is advisable to use a pharmaceutical grade of zinc white and for colored soaps a lower grade may be usefully employed. The writer considers that one of the most valuable properties of the oxide is its ability to improve the polish of the soap surface which in itself is an important sales factor.

Notes and Comments

Sorbitol Syrup— For special cosmetic soaps use is now being made of sorbitol syrup which appears to have potentially valuable properties from the soap manufacturer's standpoint. The syrup is easy to mix with the soap and its presence does not lead to any complications. The commercial syrup usually contains 83 per cent sorbitol with traces of glucose and sodium sulphate, both of which are innocuous impurities. Although sorbitol is similar to glycerine, it has the advantage over the latter of being less hygroscopic and able to hold moisture better in dry atmospheres. The presence of this compound in the soap in reasonable proportions 1-2.5 per cent does not, according to Continental workers, lead to sweating or other evils.

Use of Lithium Compounds— The use of small quantities of lithium compounds in soap is claimed to impart degreasing properties and enable toilet soap to be used for shaving purposes. In a recent British patent, No. 498,850, mention is made of lithium carbonate, oxide and citrate with or without the corresponding compounds of magnesium, strontium, thorium, etc. The proportion by weight of the salt or oxide can vary somewhat according to the nature of the soap. The proportions mentioned in the patent are 1 per cent lithium carbonate plus soap; .75 per cent lithium carbonate and .5 per cent magnesium carbonate plus soap; 1.5 per cent lithium citrate plus soap. The patent recommends the use of a normal washing soap or toilet superfatted soap containing 62 per cent to 64 per cent fatty acids, or standard sodium or potassium stearates or oleates. Combination of the salt or oxide with the soap is effected during the manufacture of the soap, either during boiling, cooling or trituration with the finished soap.

Emulsifying Agents— Soaps made by heating oleic acid or other suitable fatty acid with cyclohexylamine are the latest additions to the now extensive range of industrial emulsifying agents. A British patent, No. 501,521, just taken out by Howards & Sons Ltd., famous London chemical manufacturers, describes how cyclohexylamine oleate may be made by heating oleic acid to 75 deg. C. and running in slowly the calculated quantity of cyclohexylamine. On cooling the mass becomes a highly viscous liquid which may be used to emulsify such difficult products as carnauba wax, spindle oil, beeswax, etc. Cyclohexylamine ricinoleate is recommended for emulsifying methylcyclohexanol. The ricinoleate can be prepared in the same way as the oleate. There seems little doubt that the cyclohexylamine soaps will be found very useful for manufacturing all types of polishes and shoe dressings.

New Industrial Solvents—Triethyl borate and tributyl borate, the latest additions to the 1939 range of industrial solvents, are now being examined by soap manufacturers anxious to exploit their antiseptic properties. Both solvents have the property of depositing boric acid in finely divided crystalline form in the presence of moisture and when added to soap they cause tiny crystals of boric acid to be dispersed throughout the mass. The author considers that they are of doubtful value as soap additives as their incorporation seems rather a costly way of adding boric acid which could be easily mixed with soap in the usual way. Triethyl borate and tributyl borate are solvents for a large range of materials including ester gum, naphthalene, dibutyl phthalate and tributyl phosphate, ethyl cellulose, etc., and are miscible with most common organic solvents.

NEW PRODUCTS AND PROCESSES

Cameron Remote Sampler

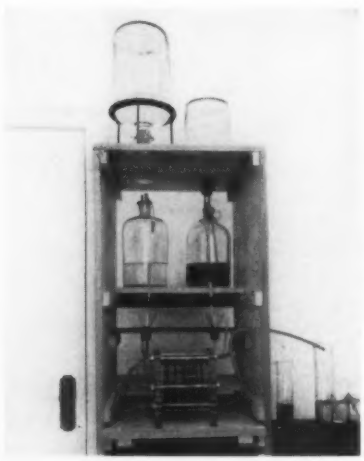
With the Cameron pH meter there is no need to spend time walking back and forth for fresh samples, according to the Wilkens-Anderson Co. Remote sampling saves the chemist's time, it is pointed out, as the sampling trap may be mounted up to 500 feet from the control laboratory or superintendent's office. A number of valves may be used for feeding samples from various vats to the single sampling trap. Further details, including printed matter describing factory layouts or a complete installation, may be had for the asking.

Tonala 30

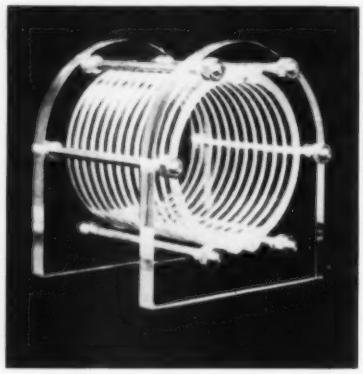
A new product, Tonala "30," made entirely from domestic materials and described as "a bunch of fragrance," is announced by Compagnie Parento, New York. This new specialty is said to blend with practically every type of perfume oil and to give a floweriness to perfume oil compositions.

Laboratory Dialyser

A new dialyser used for the recovery of soluble salts or the purification of solutions is offered by the Brosites Machine Co. The new webcell continuous dialyser is produced in a laboratory model and is manufactured with transparent methyl methacrylate which is said to be resistant to many chemical solutions. As it is manufactured of a transparent plastic, the operation may be observed. Freedom from breakage and resiliency are features claimed. The laboratory model, it is stated,



Webcell Continuous Dialyser



Unit of the dialyser

bears a direct relation in capacity to the production machine so that a problem may be accurately estimated from the results obtained with this experimental unit.

Contour Sawing Machine

A new Doall V-26 contour sawing and filing machine that is stated to provide a new way to cut machineable materials is offered by Continental Machines, Inc. Tools and production parts which previously have been cut out by laborious methods, the makers state, may be readily cut out by the new machine. Full data will be sent on application.

New Tape Shooter

Shipments are made safer with the 1940 Counterboy tape shooter, according to the manufacturers, Better Packages, Inc. In this tape shooter the makers state every particle of glue gets exact, even moistening. It is adjustable to the requirements of any brand of tape. An instant tape length selector is a feature. Further details and printed matter will be sent on request.

Machine for All Types of Floors

A medium duty floor machine for all types of floors is offered by the Fay Co. Interchangeable attachments make it serviceable, it is stated, for scrubbing, polishing, waxing, steel wooling and light sanding of floors. It operates on a 1/3 or ½ horsepower motor. With the latter it has a pressure of 95 pounds on the brush, the makers declare, and it is equal in efficiency to ten men caring for floors by hand. Full information together with printed matter about it will be sent on application

Spray Painting and Finishing

Answers to finishing problems, reports on new developments in spray painting equipment and engineering and performance data on all types of spray guns, spray booths, air compressors, painting outfits, extractors, respirators and hose are given in the data book for 1940 prepared by the Binks Mfg. Co. Copies may be obtained on request.

Fasteners for Display Advertising

Fastex, patented rubber fasteners for quick, neat and economical attachment of any object to display cards, are offered by Patterson Displays, Inc. The rubber bands which are especially made for this purpose are furnished in black, red, yellow and green. The bands are inserted through holes in the display card. A heavy rubber base on the bands prevents them from slipping through the hole and simplifies their use. An average of 800 size B Fastex may be attached per hour it is stated. Full details about their applications, prices and samples may be had for the asking.

'Vinicote Coating' for Tubes

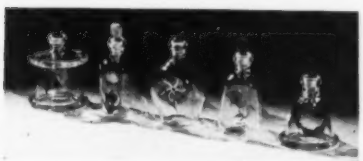
T. C. Sheffield, manager of the Middle Western Division of New England Collapsible Tube Co., reports a degree of interest in their new "Vinicote" series of protective coatings for collapsible tubes, far beyond expectations. It is evident, according to Mr. Sheffield, that a definite need exists for scientifically developed interior tube coatings that will serve efficiently for any specific product.

It is reported that the announcement of New England's new "Vinicote" service, which consists of an extensive series of different types of inner coatings, each one specifically designed for certain types of products and problems, has caused so many manufacturers to present their problems to New England's research department that its normally ample facilities have been taxed. Each problem receives thorough analysis, and accurate recommendation. In addition to the development of the new

"Vinicote" series it is stated that a new method of applying these inner coatings assures an even, non-flaking coat to the tube interiors. The outer tube remains clear for efficient closure and jaw action.

Miniature Glass Bottles

The fad for miniatures which is sweeping the country may be capitalized to stimulate the sale of perfume by means of hand blown miniature bottles which are offered by



Some popular miniature bottles

Glass Industries of America in a wide variety of attractive and original shapes and designs including hand painted bottles. They also include vial type miniatures decorated with metalized bands or all-over metal finishes. The vials are offered in sizes from 1/5 dram up; and the miniature bottles in sizes from 1 dram up. All are furnished with interchangeable inside screw stoppers of clear or colored glass, with or without rods. The bottles, it is pointed out, afford a convenient means for the sale of perfumes in small lots and also enable the user to have a personally selected perfume bar in dram bottles.

Another ingenious means for capitalizing the vogue for miniature bottles is an attractive necklace designed by Frances Heller, which the makers report, is selling well especially among the younger set. The bottles in the necklace may be filled by

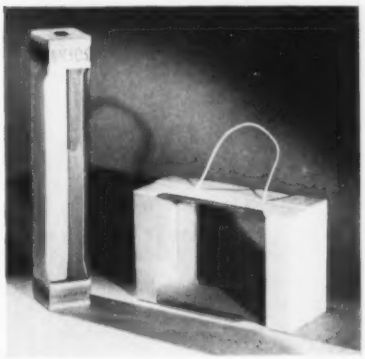
Necklace made of miniatures

means of the miniature glass funnel with a variety of odors according to the whim of the user.

Full information about the necklace and samples of the miniature bottles will be supplied by Glass Industries of America, Inc., which is under the direction of George Grunberg who designed the bottles. He has been identified with the novelty glassware business for more than a quarter of a century, and has created numerous popular glass containers and vials.

Semi-Transparent Boxes

Semi-transparent containers offer definite sales advantages to products packed in them, according to the Flower City Specialty Co., which manufactures Lookit paper boxes. These boxes not only display the

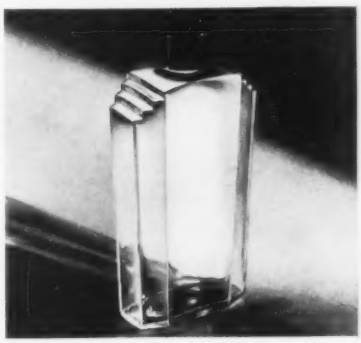


Various styles are available

product but protect it as well. Full details about Lookit boxes and their uses may be had from Sewell H. Corkran, who has been appointed metropolitan representative for the manufacturers.

New Majestic Oval

The new "Majestic Oval" just announced by the Maryland Glass



Stylish New Maryland Bottle

Corp., gives, the company states, sales-building chic and charm to perfumes, toilet waters, lotions, hair tonics, shampoos and other products which find their place in milady's boudoir.

Manufactured only in natural flint glass, the Majestic Oval is available in 1/8, 1/4, 1/2, 1, 2, 4, 6, 8, 16 and 32 oz. sizes. Black Bakelite caps can be furnished from stock if desired. Sprinkler tops are available in the 2, 4, 6, 8 oz. sizes. All sizes are kept in stock regularly by the manufacturer and samples will be sent on request by Maryland Glass Corp., Baltimore, Md.

CATALOGS AND DEVELOPMENTS

Stainless Steel is described in a new 24-page booklet which contains useful information on Jessop Silver-Ply stainless-clad steel for both buyers and fabricators of stainless equipment, which has just been issued by the Jessop Steel Co.

A convenient vest pocket diary and memorandum booklet, neatly bound in leather, is being distributed to its customers by the Interstate Color Co., Inc., 7 Beekman St., New York City. The company specializes in technical and certified colors.

The beautiful calendar issued annually by Firmenich & Co., Inc., depicting scenes in Switzerland in color, has been distributed by the American company, Firmenich & Co., 135 Fifth ave., New York, N. Y.

Proceedings of the tenth and eleventh annual meetings of the Association of Canadian Perfumers and Manufacturers of Toilet Articles are contained in the booklet recently issued by that association. Not only does the booklet record the actions taken at these two meetings, one in June, 1938, and the other in June, 1939, but it lists the members, active and associate, of the organization.

Philadelphia (Pa.) College of Pharmacy and Science, what it is and what it does is given in a leaflet which has been prepared by the college for distribution upon request.

Books to Aid You

THE MERCK INDEX, *compiled and published by Merck & Co., Inc., Rahway, N. J. Fifth edition. 6 x 9 in., 1060 pages, 1940. Price $3.00.*
Representing the most extensive compilation of this authoritative reference work, The Merck Index contains useful scientific data and other information on the physical, chemical and medicinal properties as well as the various uses of chemicals and drugs. Especially valuable to the research worker, the book presents 5,900 descriptions of individual substances; 4,500 chemical, clinico-chemical reactions, tests and reagents by the author's name; formulas; tables; literature references, etc. One of the most valuable phases to those in the cosmetic field is the section describing 113 coaltar colors which are permissible for use in foods, drugs and cosmetics.

This encyclopedia is invaluable to the chemist, pharmacist or anyone in allied professions. It fulfills its original purpose in being "condensed, comprehensive and reliable."

COSMETIQUES ET PRODUITS DE BEUTE, *by Rene le Florentin. Librairie Desforges, Paris, France. 5 x 7½ inches. 201 pages. 1938. Price 5 francs.*
A typical European book, with formulas for products popular across the Atlantic, as well as products salable only across the water.

For the most part, the book is a compilation of formulas taken from a variety of sources, as well as a partial patent digest on the topics discussed.

Starch still forms the major basis of face powders, with talc being recommended in percentages ranging from 10 to 50%. Orris root is still recommended as a face powder ingredient.

Formulas on sun tan preparations are antiques for the most part. The only useful screen mentioned is tanin, and this is not so wise a suggestion as one might think.

The various other subjects treated are done in about the same manner as face powders and sun tan preparations. The book is useful only if you want a compilation of formulas, many of them quite old, most of them unsatisfactory for the American consumer.

QUESTIONS AND ANSWERS

284. Lipoid Balance

Q: We are interested in securing information regarding the lipoid balance of the skin. We would be pleased to have you make recommendations covering this subject. T. F., Calif.

A: Your best bet in learning the chemistry and the lipoid balance of the skin is to check original articles by Kooyman, *Proceedings Society of Experimental Biology and Medicine*, Vol. 29, pages 244, 445, and 485, 1932. Interesting descriptions of the skin composition and chemistry are also described in *Special Cytology* by Cowdry and by McLean, *Lecithin and Allied Substances.*

285. Hair Lacquer

Q: Please send us complete information on manufacturing of hair lacquer. H. E., Argentina.

A: A hair lacquer may be formulated from a water soluble resin such as Mannitol borate or solubilized shellac used at the rate of 15 to 20 per cent in a hydro-alcoholic liquid. If preferred, a hair lacquer may be made from a solution of resin such as benzoin, sandacarc or ordinary pine rosin. A formula for such a preparation may be as follows:

10	parts	Benzoin
1	"	Mastic
5	"	Sandacarc
20	"	Clear Rosin
1	"	Perfume
630	"	90% Alcohol

Directions: Dissolve with the aid of heat, cool and filter bright.

286. Shampoo Base

Q: Would you kindly send us a typical formula for shampoo base in paste and liquid form? Your notes and comments on the preparation of these bases will be appreciated. C. C., Ohio.

A: It is nigh on to impossible to give you a perfect formula for either a shampoo paste or liquid, the reason for this being that unless you have the proper equipment a good product can not be made. However, we give you the following formula quoted from the *Pharmaceutical Formulas*, Vol. 2, found useful in the past:

Coconut Oil	40	lbs.
Caustic Potash (90%)	4½	"
Caustic Soda (98%)	4	"
Water to make	20	gal.
Alcohol	2½	"

Directions: Dissolve the alkali in 2 gallons of water. Melt the oil and while warm pour in the lye in a thin stream stirring all the time. Add the alcohol and continue stirring until a clear honey color is produced; it is not necessary to agitate violently. Saponification is complete in about 20 minutes and may be determined by the evolution of a pungent fruit-like odor. Set aside to cool and filter bright.

A paste may be made similarly but less alcohol or water will be required. Paste contains approximately 60 to 65 per cent Anhydrous Soap while shampoo ordinarily contains 20 to 25 per cent of Anhydrous Soap.

287. Perfume Oil Solvents

Q: Can you inform us as to where we can purchase water solubilizing perfume bases at the lowest possible price? We want a product capable of producing a sufficiently strong aroma and clear solution when mixed at the ratio of one-half dram per ounce of water and to be used as any other perfume is used in perfuming skin or clothing. M. P., Indiana.

A: Three types of solvents for perfume oils are available. 1) Sulphonated oils and compounds of them, 2) glycols, and 3) wetting agents. Names of suppliers of these materials are sent to you under separate cover. We have not mentioned alcohol as it will not carry a sufficiently large amount of perfume at the ratio in which you wish to use it.

AMONG OUR FRIENDS

▸ Dr. Ernest Guenther gave an interesting talk on the Romance of Perfume, illustrated with several reels of colored motion pictures before the Cosmetic Section of the Women's Fashion Group in New York, December 11. "America," he said in part, "has succeeded in developing the world's outstanding cosmetic preparations and as America is settling down to a more leisurely life, enjoying the beauties with which nature has so richly endowed it, and with the beginning of a new era of science, music and decorative art, there is no reason why in future years America should not also create outstanding perfumes."

Dr. Ernest Guenther

▸ M. G. Couderchet of Naugatuck Aromatics, New York, N. Y., who represents Bruno Court, of Grasse, France, received word recently that A. Blanqué, president of the latter firm who now is serving France at the front, was granted a leave of absence for a short period during November at which time he was able to return to Grasse. Mr. Blanqué is a captain in the French Air force.

▸ Carl E. Berlin, director of Parfums Ciro, New York, N. Y., and Paris, France, arrived on the Atlantic Clipper from France early in December to obtain permission to get drivers and funds for the American Volunteers Ambulance in France. He also carried diplomatic papers from the U. S. Embassy in Paris for Secretary of State Cordell Hull. Mr. Berlin was formerly commander of the American Legion post in Paris. The ambulance unit is striving to have 20 sections of 22 ambulances each. Forty Americans living in Paris have enlisted already.

▸ Dr. Charles M. A. Stine, director of research and vice-president of E. I. du Pont de Nemours & Co., was awarded the Perkin medal January 12 at a joint meeting of the Society of Chemical Industry, American Chemical Society, American Institute of Chemical Engineers, the Electrochemical Society and Societe de Chimie Industrielle.

▸ A. E. Mullen reports for the American Perfumers Laboratories Division of Allied Products, Inc., New York N. Y., for 1939, greatest sales in the eighteen years of the business life of the laboratories both in volume of sales and percentage of increase.

▸ Mme Helena Rubinstein returned January 3 on the *Santa Barbara* from South America where she spent two months in studying climatic effects on the hair and skin with a view to producing preparations for the South American trade.

▸ James J. Moran, who has been with the Kimble Glass Co. for 20 years in various technical capacities, has been appointed to the position of technical manager of the sales department.

▸ Dudley W. Smith is the new special sales representative for the House for Men, Inc., Chicago, Ill., of which G. F. Claypool is president. Mr. Smith formerly was connected with Parfumerie de Raymond and Houbigant.

▸ Dr. and Mrs. Eric C. Kunz of Montclair, N. J., have announced the engagement of their daughter, Narcisse, to George Cadgene, son of Mrs. Ernest Cadgene of Englewood and the late Dr. Cadgene. Dr. Eric C. Kunz is the president of Givaudan-Delawanna, Inc., and well-known to our readers. Miss Kunz was a graduate from the Kimberly School, Montclair, N. J., and is a senior at National Park College. Mr. Cadgene was graduated from Newman School and is a senior at Princeton University.

Miss Narcisse Kunz

▸ S. M. Chavdaroff of Chavdaroff Brothers, New York, N. Y., is spending several months in Arizona.

▸ Robert Krone and Mrs. Krone spent the year-end holidays in Florida. Mr. Krone is assistant to John H. Montgomery, secretary of Fritzsche Brothers, Inc.

▸ Frederick C. Theile, head of P. R. Dreyer, Inc., is in receipt of a letter from Emile Schlienger, president of Bertrand Freres, manufacturers of perfume materials, Grasse, France, in which he says that his three sons and sons-in-law are in the army. Mr. Schlienger reports that so far as he knows they are all well. Through his annual visits here in the United States for well over thirty years, Mr. Schlienger has acquired a host of friends who will undoubtedly be glad to know he and his family are well.

▸ Thomas L. Floyd-Jones, formerly product sales manager of E. R. Squibb & Sons, Brooklyn, N. Y., has been elected president and treasurer of the Union Pharmacal Co.

▸ A. E. Johnston of the Toilet Goods Manufacturers Association of Canada celebrated his birthday December 14 when the Christmas party of the association was held.

▸ H. Gregory Thomas of Bourjois, Inc., recently was elected chairman of the advisory committee of the American Fair Trade Council, Inc., New York.

▸ Jesse L. Hopkins, founder and president of J. L. Hopkins & Co., New York, N. Y., is receiving the congratulations of friends on the fiftieth anniversary of the company. The concern which imports and distributes crude drugs was founded by Mr. Hopkins in 1890 after some years of association with Sharp & Dohme of Baltimore, Maryland.

▸ Mr. and Mrs. Richard Saloman whose marriage took place recently are now at home to their friends at 180 East 79th St., New York, N. Y. Mr. Saloman is general manager of Charles of the Ritz. Mr. Saloman's uncle, B. E. Levy, chairman of the board of Coty, Inc., was his best man at the wedding.

▸ Thomas C. Frary has been appointed by Smith & Scott, Ltd., Bailey's Bay, Bermuda, producers of Lili Perfumes, as United States distributor for their perfumes. Mr. Frary will be located in the Chanin Building, New York, N. Y. Mr. Frary has been actively connected with the firm of Smith & Scott, Ltd., in Bermuda for the past eighteen months in the capacity of assistant to Herbert Scott, vice-president and general manager of the company. He has been engaged there in all details of the organization, including the actual preparation of extracts from Bermuda flowers, which are used in the making of these perfumes. Mr. Frary received his chemical training at Worcester Tech.

Thomas C. Frary

USE U.S.I. ALCOHOL IN YOUR RUBBING ALCOHOL

STUDY these facts before you include "just any alcohol" in your rubbing alcohol formula:

Ethyl alcohol is the only alcohol recognized by the U.S.P. XI or N.F. VI.

Because of its undisputed safety and known invigorating properties, it is the alcohol selected by most hospitals.

U.S.I. ethyl alcohol guarantees you these advantages and, at the same time, makes your product easier to perfume.

U.S.I. alcohol has no foreign odor which would conflict with your delicate essential oils. Perfume destructive elements such as fusel oil constituents, aldehydes, and other organic impurities are held to new low levels.

One hundred years of experience with America's leading hospitals and perfumers have taught U.S.I. how to make really pure alcohol. Take advantage of this background—call in a U.S.I. salesman to help you check all details.

U.S. INDUSTRIAL CHEMICALS, INC.
60 EAST 42nd STREET, NEW YORK, N. Y.
A Subsidiary of U.S. Industrial Alcohol Co. • Branches in All Principal Cities

NEWS and EVENTS

How to determine carton Sizes for collapsible tubes

The Packaging Institute, in behalf of the cosmetic industry has submitted a plan to the Food and Drug Administration for the packaging of toothpaste, which in part provides that a tube placed in a carton would conform to the following tolerances: (1) a tolerance of 3/32 of an inch on one side and 4/32 of an inch on the other side if the tube rests against two of the inner walls; (2) a tolerance in the length of the carton of 7/32 of an inch; that is, the tube would be not more than 7/32 of an inch from the top of the carton. Under the plan it would not be necessary that tubes under 5/8 of an inch in diameter be inserted diagonally. The above set forth reference indicates the position that officials of the Food and Drug Administration have taken regarding enforcement of the misleading container provisions.

"English", "London" removed From Yardley's U.S. products

Yardley of London, Inc., has been ordered by the Federal Trade Commission to discontinue certain representations in the sale of cosmetics. The company operates a plant in Union City, N. J., and a retail shop at 620 Fifth Ave., New York, N. Y.

Findings are that many users of cosmetics and perfumes consider that such articles made or compounded in England are superior to similar articles produced in the United States, and that, in connection with the sale of its preparations, the company made representations which had a tendency to mislead consumers into the mistaken belief that all of its preparations are manufactured and compounded into the finished product in England and then imported into the United States.

It was found that the procedure generally followed in manufacturing included the receipt of certain imported ingredients in bulk from its parent company, Yardley & Co., Ltd., of London, and the mixture of these ingredients, in most cases, with certain domestic ingredients at its plant in Union City, N. J., in accordance with the parent (London) company's formulas.

In compounding its complexion cream, brilliantine, after shaving lotion, bath salts and a "Night Cream," the company was found to have combined both domestic and imported ingredients to produce the completed product at its New Jersey plant.

The Commission's order directed that, in connection with its sale of toilet requisites and cosmetics, including, without limitation, perfumes, bath salts, facial creams, brilliantines and after shaving lotions, the corporation cease representing, through use of the word "London," "English" or "Old English," or in other ways, that any of its preparations which were in fact made, compounded, diluted or bottled in the United States, or in any place other than England, were so produced in England or are of English origin; provided, however, that the country of origin of the various ingredients thereof may be stated when immediately accompanied by an explanation that such products were made, compounded, diluted or bottled, as the case may be, in the United States or in such place other than England.

The order also prohibits use of the terms or phrases "33 Old Bond Street," "Straight from Bond Street," or any other words or phrases of similar import to describe its preparations which were in fact made, compounded, diluted or bottled in the United States or in any place other than England.

A further representation forbidden is use of the word "London" as part of the company's corporate name in connection with the sale of its cosmetic products which were in fact made, compounded, diluted or bottled in the United States or in any place other than England, without clearly and conspicuously stating in immediate connection therewith that such products were made, compounded, diluted or bottled, as the case may be, in the United States or in such place other than England.

Doleith Inc. forms new Combined company

Doleith Inc., 120 South LaSalle St., Chicago, Ill., has purchased the assets of Doleith Laboratories Inc., San Francisco, Cal. The main office of the new company is in Chicago and laboratories and manufacturing facilities will be continued in San Francisco. Officers of the new company are: Joseph R. Patton, Jr., president; Dr. W. J. Coleman, vice-president; John V. Patton, secretary-treasurer; Thomas J. Salsman and Eloise M. Patton, directors.

Baby Touch Hair Remover Claims attacked by FTC

Alleging that Baby Touch Hair Remover made by J. C. Davis, St. Louis, Mo., is merely an abrasive substance the Federal Trade Commission has issued a complaint charging misrepresentation.

California drug law Regulates cosmetics

The California food and drug act became effective January 1. The new law makes it illegal to label or advertise certain creams as rejuvenating. It has not even overlooked such claims as ability to make hair grow. Other forbidden terms are "coutour cream," "deep pore cleanser," "nail grower," "scalp food," "nourishing cream," "pore paste," "skin food," "skin tonic," and "tissue cream."

Penalties for violation are fines of from $25 to $500 and imprisonment for six months, or both, for first convictions, and $1,000 and one year for subsequent violations.

Ammon Laboratories launch New mouth wash

Ammon Laboratories, St. Paul, Minn., announces Ammon mouth wash which is being introduced in Minneapolis and St. Paul.

Luminous lipstick suggested For British women

The *Star*, a London evening newspaper, recently published an amusing cartoon of a chemist who had discovered a luminous lipstick. Certainly such a lipstick would be a blessing to Englishwomen during the black-out in Great Britain, which now that winter has come, lasts for about fifteen hours every day. The idea does not seem to be an altogether fantastic one. Perhaps some American chemist will invent a luminous lipstick for the benefit of his cousins across the Atlantic. Or, if not a luminous lipstick, luminous face-powder would fill the need as well.

Tomback restrained from Use of word "laboratory"

Harry Tomback, trading as Tomil Research Laboratories, New York, N. Y., agrees to cease advertising that application of his preparation "Albaderm" to the skin will of itself relieve acne, blackheads, whiteheads or other skin blemishes; that by continued use of this product alone, for any given period of time, persons with pimples, acne, blackheads or other skin blemishes can obtain permanent relief therefrom, and that "Albaderm," or the ingredients composing it, will remove bacterial infections causing skin blemishes.

Among other representations to be discontinued are that application of "Albaderm," according to the directions prescribed, has brought happiness to hundreds, and that application of the product to the skin is harmless in all cases. He also stipulates that he will cease representing, through use of the words "laboratory" or "research," or other words of similar import as part of a trade name, that he operates, conducts or maintains a laboratory for research, manufacturing, testing or experimenting with the preparation sold by him until such time as he actually owns and operates such a laboratory.

McKesson & Robbins to Modify claims for Calox

McKesson & Robbins, Inc., has been ordered by the Federal Trade Commission to cease disseminating advertisements representing that the use of Calox tooth powder alone will assure the possession of teeth that are white, clear and sparkling, or teeth as beautiful as those of some movie stars; that movie stars employ Calox tooth powder to the exclusion of all other dentifrices; that the respondent's dentifrices will clean the proximal surfaces between the teeth, and that its use will result in liberation of nascent oxygen in the mouth, prevent film on teeth or decay or remove stains other than ordinary surface stains. The respondent is also directed to cease representing that the sodium perborate in its product will keep gums firm and healthy; that use of a tooth powder is more effective in cleansing and polishing teeth than is use of a tooth paste, and other similar representations.

"Jerry's" resembles "Jeris" And Winarick gets injunction

Nat Winarick, secretary and general manager of the Ar. Winarick, Inc., makers of hair tonics and other products bearing the trademark "Jeris," announces that a successful lawsuit was completed in the District Court of the United States for the Southern District of Texas against George W. Bailes Laboratories, whereby defendant is restrained from using the name "Jerry's" as a trademark for the sale of hair tonics or any other similar products.

Suit was started against the Bailes Laboratories in the Federal Court and the relief sought by the plaintiff is expressed in an injunction signed by Federal Judge T. M. Kennerly.

W. J. Bush & Co. moves to Larger Chicago premises

It is interesting to note that the Chicago branch of W. J. Bush & Co., Inc., has moved to larger premises in view of its expanding business. The branch, as formerly, is located in the Manhattan Building, 431 South Dearborn St., but occupies a considerably larger suite where an adequate stock of the company's products is maintained. W. P. Church remains in charge of the company's extended activities in Chicago.

Over 200,000 new chemical Products created since 1914

Men and women who have been associated with Merck & Co., Inc., manufacturing chemists of Rahway, N. J., for 25 to 51 years, numbering 127, were honored at a dinner December 18, given by George W. Merck, president of the company, at the Essex Club, Newark, N. J. The employees also presented Mr. Merck with an engrossed book appropriately inscribed, in recognition of his twenty-fifth anniversary with the company.

George W. Merck

George W. Merck acted as host and toastmaster. In addressing the group he pointed out that the company which started business with less than a dozen people had grown to a point where it now employs 1750 people and manufactures more than 3000 products used by chemists, pharmacists, physicians, and those in allied professions; by all important branches of industry, and by the general public. He stated that the past twenty-five years was a period noteworthy for its contributions to scientific achievement, industrial progress, better living and public health. More than 200,000 products entirely new to man have come from chemical laboratories since 1914, said Mr. Merck. He then reviewed the advances in medicinal chemistry.

"Here then," said Mr. Merck to the 127 employees who were being honored for their long service to the company, "is a brief record of the contributions of the American chemical industry of which you are a part—a record, not of death-dealing and destructive materials, but of products intended to relieve pain, to combat disease, and to safeguard health and life. Through your long years of service in the Merck organization you have shared in these contributions to mankind, and have helped to make this world a better place in which to live."

Advertising agent on griddle For cosmetic advertising

Walter W. George, conducting an advertising agency at 150 Nassau St., New York, N. Y., which disseminated advertisements for a tissue builder designated "Jane Cook's Wonder Tissue Creme" on behalf of Jane Cook Method, Los Angeles, will cease representing, by agreement with the Federal Trade Commission, that such a cream will increase the size of the bust or that it will correct a flat chest, flabby or sagging bust, scrawny neck, or an underweight condition. He further agrees to cease disseminating any advertisements representing that the product is in fact a "tissue" cream, either by the inclusion of that word in the name for the product, or otherwise.

Lever Bros. stops comparing Rinso with other products

Lever Brothers Co., in the sale of a detergent designated "Rinso," agrees with the Federal Trade Commission to desist from representing that one using "Rinso" will "never" have red or rough hands; that the product in every instance will make clothes at least 5 shades whiter or that colors "never" fade when washed with it; that no other soap will produce the degree or kind of whiteness attained by "Rinso," or will do as good or quick a job as will the company's product. The representation that makers of 33 washing machines have recommended the effectiveness of "Rinso" "above all others" will also be discontinued.

Grasse essential oil Men in war service

Among the essential oil men of Grasse, France, who are in active war service are the following:

Louis Amic, Roure-Bertrand Fils and Justin duPont, who is a warranted officer in the meteorological service;

COULDN'T BE DONE TWO YEARS AGO

Scores of products for which plain Aluminum tubes are unsuitable are now being packed successfully in Alcoa Aluminum Tubes. Ichthyol, which is supplied under the Merck label. for example.

This has been made possible, since 1937. by the perfection of new types of interior coatings which do not affect the product and keep the product from reacting with the tube. The coatings are inert to even acid and alkaline ingredients.

So now the advantages of Aluminum . . . purity, lightness, strength and economy . . . can be enjoyed by virtually all tube users. In price these coated Alcoa Aluminum Tubes are but slightly higher than plain Aluminum tubes.

Of course, for many products no interior coating is needed; plain Alcoa Aluminum Tubes are entirely satisfactory. Yours may be among these. For full information, write ALUMINUM COMPANY OF AMERICA, 2170 Gulf Building, Pittsburgh, Pa.

PACK *Safely* IN PURE

ALCOA ALUMINUM TUBES

Francois Amic. who serves as a lieutenant in a heavy artillery unit; Francois Goby, Tombarel Freres, who is a lieutenant in the battalion of Chasseurs Alpins. M. Proal of Payan & Bertrand is also in this unit as a sergeant. Jean Goby, Tombarel Freres, is a lieutenant of artillery.

A. Blanqué, of Bruno Court, is an aviation captain. Andre Guichard, Schmoller & Bompard, is in the 159th regional regiment and M. Faverjon, Payan & Bertrand, is a sergeant in the same unit. Gabriel Mane, Victor Mane & Fils, is an artillery sergeant; and Eugene Mane is a staff captain. Georges Morel, Lautier Fils, is a commissioned officer in a tank unit. M. de Boutiny is serving in the captive balloon division. All of the sons of Emile Schlienger, Bertrand Freres, are also in active service.

Leonard Schwarz forms two Soap products companies

Two new corporations have been organized by Leonard B. Schwarz, former president of the Clifton Chemical Co., which will manufacture a complete line of liquid shampoos, bases, shaving cream, etc.

The new companies are the Ampion Chemical Co. and the Tempo Chemical Co., Inc. The address of the Ampion Chemical Co. Inc. is 4—88 Forty-seventh Ave., Long Island City, N. Y., and the Tempo Chemical Co. Inc. is located at 47—02 Fifth St., Long Island City. The Ampion Co. has leased, with the option to buy, the plant that was previously kept by the National Varnish Co. at the above address.

Equipment and machinery is being installed to make shampoos, bases and similar products. The facilities, Mr. Schwarz points out, are sufficient to take care of carload business as storage capacity in the concern's tanks is more than 50,000 gallons for the various grades of liquid shampoos, etc. The plot is 100 x 140 ft. and the building is a two-story structure with a concrete basement. Executive offices will be maintained at the plant.

Claims for tooth paste Attacked by F. T. C.

A complaint has been issued by the Federal Trade Commission against W. C. Pollard, A. L. Riaff, and L. M. Jensen, trading as Hi-Ho Co., Columbus, Ohio, sellers and distributors of a cosmetic designated "Hi-Ho Tooth Paste."

In advertising matter and through radio broadcast the respondents are alleged to have represented that "Hi-Ho" tooth paste possesses unusual and superior qualities for brightening the teeth; that it keeps the gums healthy and that it will remove all stain, film and discoloration from teeth and prevent impure breath and offensive breath odors.

Explosion damages Maschmeijer Plant while employees are out

An explosion of undetermined origin damaged the plant of A. Maschmeijer, Jr., Inc., on Roanoke Avenue, Jersey City, N. J. The explosion took place during the lunch hour when all employees were out. Damage was estimated to be about $5,000.

Fritzsche Brothers Inc. Resumes wholesale price list

Fritzsche Brothers Inc. has resumed the publication of its wholesale price list, the first since September 1, 1939, just before hostilities broke out in Europe. The company reports that the great majority of its specialties have remained unchanged in price and in sufficient supply for all normal requirements of its customers. It warns, however, that all prices are subject to change without notice and all offers of merchandise are strictly subject to prior sale.

Modern pharmaceutical practice Subject for annual seminar

To provide practicing pharmacists with a brief but thorough review of the latest developments in pharmacy, chemistry, bacteriology, biology and other sciences related to public health, the Philadelphia College of Pharmacy is holding its second annual seminar on modern pharmaceutical practice, January 29, 30 and 31. The seminar will be presented in a series of lectures and classroom demonstrations by authorities on the faculty of the college who have specialized knowledge of each field.

Cannot claim pigment to Hair shaft restored

Stafford T. Mitchell, Janet M. Mitchell and Otis S. Mitchell, trading as The Arvil Co., Chicago, have been ordered by the Federal Trade Commission to cease and desist from representations that "Arvil" restores pigment in the hair shaft or causes the hair to assume a natural or youthful color, that it is effective as an antiseptic or astringent when applied to the hair or scalp, and that either "Arvil" or "Dawn Shampoo" is a cure or remedy for baldness or an effective treatment for falling hair or the causes thereof. They also are ordered to discontinue representing (through failure to reveal that the use of "Arvil" on the skin is not wholly safe, particularly if there is any injury, abrasion or inflammatory or eczematous condition thereon) that "Arvil" contains no harmful or dangerous drugs or that the use of it will have no ill effects on the human body.

Mange lotion not competent Treatment for skin or scalp

W. H. Shanks, W. J. Goggin, Clara Shanks and Jessie G. Goggin, trading as Shanks Laboratories, Columbus, Ohio, have been ordered by the Federal Trade Commission to cease and desist from representing that "Shanks Mange Lotion" is a cure or competent treatment for eczema, abscesses, cuts or sores, or for athlete's foot or dandruff; or that the preparation is in all cases a competent treatment for itching scalp on human beings or mange on dogs or will cause hair to grow on bald spots.

Over $20,000 pledged to Jewish charity by cosmetic group

Gathering again for the cause of philanthropy, 200 leaders of the cosmetic and wholesale drug industry met at the Hotel Pennsylvania December 19 and pledged more than $20,000 to the 1939 campaign of the New York and Brooklyn Federations of Jewish Charities and their 116 medical and welfare agencies. B. Harry Badanes, chairman of the division, served as toastmaster. I. H. Bandes and Herman Brooks are co-chairmen of the division.

Officers elected and party Staged by Michigan Assn.

The seventh annual Christmas party of the Allied Drug and Cosmetic Association of Michigan was held at the Book Cadillac Hotel, December 8. Highlights of the affair were the presentation of a desk set to retiring president, Donald Melville, and the distribution of door prizes and souvenir boxes.

The party was the largest in the history of the association and was attended by many members of the industry from Canada, Chicago, New York, St. Louis, and other points throughout the country.

At the last business meeting, the following officers were elected for the year 1940: president, Walter Daniels, Parke, Davis & Co.; vice-president, A. S. Bedell, Beauty Counselors, Inc.; secretary, Maison G. De Navarre, Maison G. De Navarre Associates; treasurer, R. P. Cole, Eaton-Clarke Co.; executive committee members, G. Buck, Standard Oil Co., Ind.; and G. Snider, Commercial Solvents Corp.

Canvassers' soaps under Fire in F. T. C. Complaint

Misrepresentation in the sale of soap products is alleged in a complaint issued by the Federal Trade Commission against Indianapolis Soap Co. and Williams Soap Co., Indianapolis, and against Jesse M., Maude S., and Robert S. Daily and Sidney F. Daily, Jr., individually and as officers of the two companies.

In the sale through canvassers and peddlers of soaps known as canvassers' soaps, the companies allegedly misrepresented the actual retail value and quality of their products.

The soaps allegedly were advertised as being free from impurities and other harmful substances and as being made from natural mineral and vegetable oils. The complaint continues that they were also represented as being capable of purifying and invigorating and opening the pores of the skin and as being of superior grade and quality.

Cartons of soap sold allegedly were represented as having a retail value of 75 cents each, when, according to the complaint, they were sold to canvassers and peddlers at about 5 cents a carton.

Indianapolis Soap Co., allegedly operates under various trade names including Union Soap Co., Sanisoap Co., Sanisoap Co., Inc., W & W Soap Mfg. Co., Crescent Soap Co., Cleanaid Products Co., Utility Cleanser Co., Hoosier Mfg. Co., and Nature's Products Co.

War problems theme for Givaudan-Delawanna meeting

Representatives from the various branches located throughout the United States were in attendance at the annual sales meeting of Givaudan-Delawanna, Inc., held December 12 to 14 at the New York office of the company.

The meeting was opened with a message of greeting from Dr. Eric C. Kunz, president, and was presided over by R. M. Stevenson, sales manager.

Developments and changes brought about by the present European situation made this year's convention extremely interesting and timely. Plans were discussed and formulated for 1940 and the convention closed with a dinner at the Hotel Brevoort, attended by salesmen, office and factory executives.

DCAT schedules annual Dinner for March 14

The Drug, Chemical and Allied Trades Section of the New York Board of Trade will hold its fifteenth annual banquet March 14 at the Waldorf-Astoria Hotel, New York, N. Y. The dinner will be preceded by a reception.

van Ameringen Haebler annual Reception proves popular

A host of friends gathered at the offices of van Ameringen-Haebler Inc., New York, N. Y., on the afternoon of December 28 for the annual reception and cocktail party given by the organization. Numerous visitors from out of town as well as many old friends in the trade in the metropolitan territory dropped in during the course of the afternoon to wish the officers and staff of the company good fortune in the coming year.

Claim that cosmetics supply Natural oils to skin rejected

Bar-Je, Inc., Chicago, Ill., has stipulated with the Federal Trade Commission to cease representing that "Bar-Je Dry Skin Cleanser," "Bar-Je Night Cream," or any cosmetics containing substantially the same ingredients or properties, will supply nourishment, food values or building materials to the skin or underlying tissues, or will duplicate, restore, maintain, replace or replenish the natural oils; will overcome dry skin or impart, or maintain a protective film on the skin; will keep the skin young, youthful, or looking young and youthful, or will prevent or remove lines or wrinkles of the skin; and that the preparations contain "Lipiderm" or that there is any product or element recognized, designated or known as "Lipiderm." The corporation will also discontinue representing that the preparations are new, secret, newly discovered, or scientific in principle, method of application or use, or that such methods are adhered to only in "Bar-Je" products, or that any price is special or introductory, unless it is a price substantially lower than the price at which such preparation is customarily sold and is specifically limited to a reasonable time and discontinued at the end of such time limit.

Fragrant ink for perfume Ads gaining in favor

It appears that a widespread demand is in the making for perfume advertisements in newspapers scented with the fragrance of the particular odor that is being advertised. The vogue seems to have been started by Charles Mayer & Co., Indianapolis. Four pounds of the advertised perfume were poured into the green ink that tinted the copy. Newspapers in Atkinson, Kan., and Minneapolis, Minn., as well as in Rochester, N. Y., duplicated the experiment. Each week reports of various newspapers, notably in the Southwest, trying the experiment are received.

While definite reports are unavailable, the Federal Trade Commission is watching the new development carefully. It opens a new avenue for checking in view of the claims of "misleading" which may be filed if the smell represented in copy does not match that offered by the real product.

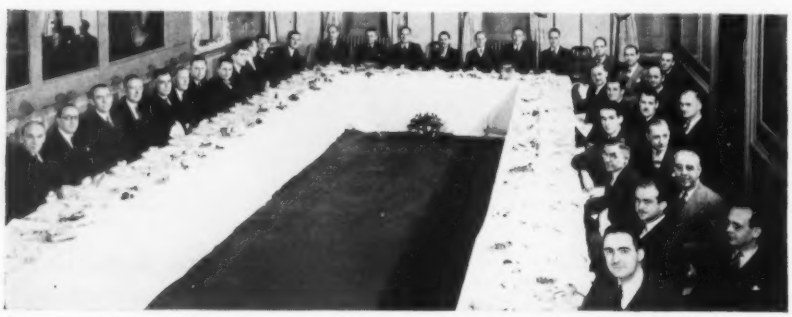
Another packaging competition Under way this month

Another packaging competition is under way, this time sponsored by the National Retail Dry Goods Association, which will present awards to the department and specialty stores that have made the greatest strides in 1939 in the creation of their own packages. Awards will be presented at the annual convention during the week of January 15.

Cosmetic representatives Honor Kresge buyer

Representatives of leading cosmetic houses entertained in honor of Bob Curran, departing toilet goods buyer of Kresge's, Newark, N. J., December 8 with an informal luncheon at the Hotel Robert Treat, Newark.

Those present included: Daniel Kitzmiller, Lentheric, Inc.; Harold McGann, Harriet Hubbard Ayer; Nelson Millard, Bourjois, Inc., and Barbara Gould, Inc.; John O'Reilly, De Vilbiss; Joe Potter, Yardley & Co., Ltd.; Donald Sherman, Houbigant, Inc.; and William Volk, Coty, Inc.



Givaudan-Delawanna closed its annual sales meeting with a banquet for salesmen and executives

TECHNICAL ABSTRACT SECTION

JANUARY 1940

Compiled by Maison G. deNavarre, Technical Editor of The American Perfumer ❋ ❋ ❋

The brief abstracts listed in this section provide you with a convenient key to the current scientific literature of the world on perfumes, cosmetics, toilet preparations, soaps, etc.

A—Analysis
B—Perfumes
C—Essential Oils
D—Cosmetics General
E—Deodorants
F—Depilatories
G—Creams General
H—Emulsion
I—Face and Other Powders
J—Make-up
K—Shampoo
L—Soaps
M—Dental Preparations
N—Antiseptics
O—Hair Preparations
P—Sun tan Preparations
Q—Miscellaneous
R—Oils and Fats
S—Shaving Preparations
T—Skin Absorption
U—Dermatitis
V—Manicure Preparations
W—Wetting and Foaming Agents
X—Permanent Waving Preparations

THE AMERICAN PERFUMER

A Analysis

Active Oxygen in Soap Powders, C. Bergell, *Seifens. Ztg.* **66**, *750, 1939.* Due to greater loss of oxygen in alkaline media, the soap to be tested should be acidified in excess when assayed for perborates.

Analysis Titanium Dioxide and Determination of Impurities in It. M. Kastner & H. Probst, *Congr. Chim. Ind. Compt. Rend. 18me Congr. Nancy, Sept.-Oct. 1938, 876.* Titanium prepared from Ilmenite always contains traces of chromium, manganese, iron, phosphorus and calcium. Methods of determining these are given. (Through *A. C.*)

Determination of Benzaldehyde and Cinnamaldehyde as 2,4, dinitrophenylhydrazones. M. Mouton, *Bull. sci. pharmacol.* **46**, *148, 1939.* The reagent is made by dissolving 1 gram dinitrophenylhydrazine in 90 cc water and 10 cc sulphuric acid. To get the hydrazone use 10 cc of solution, with 50 cc water, 6 cc sulphuric acid and 25 cc of reagent. Keep at 0° for 1 hour, filter and wash. Dry over sulphuric acid and weigh in. The factor for benzaldehyde is 0.370 and for cinnamaldehyde is 0.423. A modification where the solubility of the hydrazone affects results is described. (Through *C. A.*)

Determination of Cholesterol and Cholesterol Esters, I and II, M. Paget & G. Perrat, *Bull. soc. chim. biol.* **21**, *528 and 537, 1939.* Precipitation is made in a mixture of water-acetone-trichlorethylene. (Through *C. A.*)

Determination of Glycerine, W. Schulze, *Fette u. Seifen* **46**, *66, 1939.* Glycerine is allowed to dissolve out of the soap's sample through a parchment membrane. After 48 hours, the glycerine concentration on each side of the membrane is the same. Soap is kept on both sides of the membrane to equalize the osmotic pressure. If sugar and other dialyzable ingredients are present, they must be taken into consideration in the analysis.

Determination of Small Amounts of Arsenic in Talc, A Colorimetric Method For, S. T. Volkov, *Khim. Referat. Zhur.* **1**, *No. 4-5, 178, 1938.* Twenty grams of talc are extracted with 60 cc nitric acid by boiling for 30 minutes. Evaporate to half volume, dilute with hot water and filter. Evaporate filtrate on sand bath with sulfuric acid. Allow SO_2 to be given off for 10 minutes and cool. Add ½ gram hydrazine sulphate and heat again allowing SO_2 fumes to come off for 20 minutes more. Cool, transfer into 200 cc flask and dilute to volume. Transfer 50 cc into a Sanger-Black apparatus, heat to 35° and add 30 drops of 25 per cent $SnCl_2$ solution, 2 cc of 25 per cent $Fe_2(SO_4)_3 \cdot (NH_4)_2SO_4 \cdot 24H_2O$ and 3 grams zinc. A strip of mercuric bromide paper absorbs the arsenic. (Through *C. A.*)

Freezing Mixtures, L. L. Woods, *Chemist Analyst,* **28**, *64, 1939.* There is an occasional need for low temperatures in the laboratory. Composition of mixture giving from —8°C to —100°C are given.

Heavy Metals Test of the U.S.P. M. W. Carey & R. E. Schoetzow, *J. Am. Pharm. Assoc.,* **28**, *592, 1939.* The heavy metals test of the U.S.P. is unsatisfactory for detecting heavy metals in organic compounds and it should be studied further. It is recommended that certain limits be placed on heavy metal content, especially in the case of toxic metals like lead or mercury.

p-Hydroxybenzoic Acid Esters, Stability of. F. Reimers, *Dansk. Tids. Farm.* **12**, *240, 1938.* Solutions of the sodium salts of methyl propyl and benzyl esters of p-hydroxybenzoic acid are not stable when stored. The methyl ester hydrolyzes 5.3 per cent in 90 days, propyl ester hydrolyzes 32.3 per cent in 90 days and the benzyl ester shows 60.1 per cent hydrolysis in 90 days. In the bromometric analysis of the esters, 4 equivalents of bromine are required in the titration. However, after full saponification with aqueous sodium hydroxide, the same require 6 equivalents of bromide. By the use of these reactions, the degree of hydrolysis of the sodium salts in solution may be determined. (Through *J.A.Ph.A.*)

Identification of Organic Bases in Hair Dyes, J. Deshusses, *Mitt. Sebensm. Hyg.* **30**, *No. 1-2, 10, 1939.* A method covering all amines is described.

Iodine Number of Woolfat, Effect of Solvent Used on Value. W. Normann, *Fette u. Seifen,* **46**, *273, 1939.* Using carbon tetrachloride in place of chloroform did not appreciably change the iodine value, in the case of glycerides, but in the case of woolfat the value was nearly halved, by using carbon tetrachloride. Effects of other factors are described.

Magnesium Determination, M. I. Mdivani. *Lab. Prakt.* (*U.S.S.R.*) **1939**, *No. 2-3, 36.* The precipitate of $MgNH_4PO_4.6H_2O$ is dissolved in a measured volume of hydrochloric acid and titrated using methyl orange as indicator. (Through *C.A.*)

Method of Detecting Animal in Vegetable Fat. J. A. Broge, *Fette u. Seifen,* **46**, *131, 1939.* The method is based on the insolubility of cholesterol dibromide in ethyl ether, while similar dibromides of vegetable sterols do not. The sterols are first isolated and then changed into the dibromides.

Oxygen in Soap, Determination of. C. Bergell, *Seifensieder Ztg.* **66**, *750, 1939.* Active oxygen is determined as follows: Cover a 2 gram sample with 20 cc dilute sulphuric acid and mix uniformly. After 10 minutes titrate with standard potassium permanganate. In 10 minutes, shake with carbon tetrachloride and titrate again to usual color change. Total permanganate used is index of oxygen present.

Rapid Method of Testing Lacquers, Enamels, etc. F. J. Peters, *Farbe u. Lack,* **1939**, *183, 195, 207, 219, 231, 243 and 256.* The series describes methods of testing hardness, flexibility, adhesion and resistance to shock. The tests resemble those in *C.A.* **31**, *2027, 1937.* (Through *C.A.*)

Salicylic Acid, Michrochemical Detection as Silver Salicylate, H. Jurany, *Mikrochemie,* **26**, *314, 1939.* The microscopic appearance of the silver salt identifies as little as 0.4 gamma of salicylic acid. It may be distinguished from the benzoate, sometimes appearing together in preserving foodstuffs.

Saponification Value of Waxes, *Use of Mixed Solvents.* M. Wand, *Chemist Analyst,* **28**, *53, 1939.* The determination of saponification value

by using alcoholic potash is unsatisfactory. By adding 10 cc of toluene to the saponification the wax sample dissolves and accurate and reproducible results may be obtained. The complete procedure is given.

Sensitive Test For Peroxides and Per-Salts. A. Ionesco-Matiu & C. Popesco. *Bul. Soc. Stiinte Farm. Romania* **3**, *387, 1938.* The leuco base of methylene blue prepared as a thiosulphone by direct action of sodium thiosulphate on methylene blue in dilute hydrochloric acid solution. One half cc of reagent and a like amount of ether are placed in a test tube. The solution to be tested is then run down one side of the tube, and at the meeting of the solutions, a blue ring forms if a per-compound is present. (Through *C.A.*)

Spot Tests, *New Tests for Amines such as P-Phenylenediamine.* O. Frehden & L. Goldschmidt. *Mikrochim. Act.* **1**, *1937, 338.* Tests are described for some 50 amino compounds. The test is very sensitive for primary and secondary amines and is based on a colored Schiff base formed with furfural or with p-dimethylaminobenzaldehyde. (Through *J.A.Ph.A.*)

Test for Benzoic Acid, E. T. Illing, *Analyst,* **64**, *586, 1939.* Fading of Mohler's test for benzoic acid is avoided if the following diluent solution is used: 20 cc conc. sulphuric acid is added to 40 cc of water containing 2 grams potassium nitrate, cool and while cooling carefully add 100 cc ammonium hydroxide. Finally 40 cc water containing 0.8 grams of $NH_2OH.HCl$ is added.

Test for Glycerine, Quantitative, D. Lorenc. *Ceskoslov. Mydlar Vonavkar,* **16**, *76, 1938.* Cosmetic preparations are acidified with sulfuric acid and hydriodic acid which reacts with glycerine liberating iodine. The iodine liberated is titrated with sodium thiosulphate solution. (Through *C.A.*)

Test for Zinc, K. Komarek. *Collection Czechoslov. Chem. Commu.,* **10**, *453, 1938.* Fresh solution of $K_3Fe(CN)_6$ 0.01N, buffered at pH 5-6 with ammonium acetate mixed with postassium iodide and starch mucilage. Iodine is liberated only upon addition of zinc ion and in proportion to the amount of zinc present. Dilute solutions may take two minutes for the full color to develop. Zinc must be separated from ferrous iron, nickel, cobalt, and manganese before making the test. (Through *C.A.*)

Vanillin, Colorimetric Method for, A. L. Curl and E. K. Nelson. *J. Assoc. Official Agr. Chem.,* **22**, *684, 1939.* Colorimetric method of analysis gives higher results than the gravimetric method. As a result of the study, three recommendations are made: (1) the ratio of neutral to basic lead should be of the order of 3:1; (2) the vanillin standard must be kept in a refrigerator; and (3) a 20 per cent solution of sodium carbonate is better than a saturated solution for developing the color.

B Perfumes

Absolute Oil of Carnations, S. Sabetay & G. Mane, *Rev. de Chim. Ind. 1939, p. 39.* Carnations obtained from Grasse regions are extracted with petroleum ether and yield a yellowish concrete. This concrete is further resolved and eugenol is definitely isolated in the phenolic portion. The nonphenolic portion shows a coffee-reseda-like odor, and upon fusion with sodium gives off hydrogen sulfide. (Through *Recherches.*)

Cinnamic Alcohol, H. S. Redgrove. *Mfg. Perfumer, through Drug & Cosm. Ind.,* **45**, *489, 1939.* The pure article melts at 33°C, but the commercial article is usually liquid. Up to 30 per cent may be used in hyacinth perfumes. Cinnamic alcohol also finds usefulness in lilac, lily and fancy bouquets.

Citral Condensation with Other Aldehydes. *Brit. Patent No. 510,540.* Citral may be condensed with other aldehydes by using one or more condensing agents such as sodamid or potassium tertiary butoxide.

l-Citronellol, J. Doevre. *Compt. Rend.* **208**, *1658, 1939.* Reducing a mixture of citronellol and geraniol by sodium in liquid ammonia gives incomplete reduction of the geraniol and makes separation impossible. By dehydrogenating the mixture over copper the aldehydes formed can be separated by distillation. Thus l-citronellol was obtained from Bourbon Geranium Oil. (Through *C.A.*)

Clarification of Cosmetic Toilet Waters & Perfumes, H. Schwarz. *Seifens. Ztg.,* **66**, *83, 1939.* Softening the water used with trisodium phosphate, among other suggestions, are given for clarifying perfumery products.

Emulsions in Perfumery, E. Mahler, *la Parf. Moderne* **33**, *265, 1939.* Several formulas with technical considerations in emulsification.

Export Essence, Permitted. *Pharm. J.,* **89**, *413, 1939.* Restrictions on exporting three typical products for which the basic formulas follow have been removed. (1) Concentrated Bath Essence, consisting of mixed essential oils or perfume 49 per cent, diethyl phthallate 1 per cent and industrial methylated spirit 50 per cent; (2) solid brilliantine, consisting of soft paraffin 92.5 per cent, hard paraffin 6 per cent and perfume or mixed essential oils 1.5 per cent; (3) lavender water, composed of mixed essential oils or perfume 8.25 per cent, and ethyl alcohol (60.op) 91.75 respectively.

Important Synthetics, H. S. Redgrove. *Mfg. Perfumer,* **4**, *343, 1939.* Anisaldehyde, heliotropin, coumarin and amyl salicylate are described. A useful powder compound consists of: phenyl ethyl alcohol 5 parts, rose geranium oil French 3 parts, ionone 100 per cent 1 part, coumarin 1 part, musk xylol 1 part, sandalwood oil E.I. ¾ part, and vanillin ½ part.

Making Flower Absolutes & Concretes in India, J. N. Banerji. *Ind. Soap J.,* **6**, *33, 1939.* At present time following essential oils are being regularly made: sandalwood, linaloe, vetivert, patchouly, clove, ajwan, anise, caraway, lemon and orange group, eucalyptus, lemongrass, citronella, geranium, lavender, cinnamon, palmarosa, agar. Certain other oils produced by enflourage or volatile solvent extraction are also made. These are the aromatic oils of bela, shephali, rose, bakul, gardenia hena, champaka, malati and mangoe.

Perfumed Cellulose Esters. *U. S. Pat. 2,169,055.* Perfumed plastic ar-

ticles which give off an odor over prolonged periods of time are made by incorporating perfume composition in solution of cellulose acetate or nitrate.

Perfumed Soap Base, Anon. *Alcohol News, December, 1939.* Opoponax resinoid 5 parts, benzoin Siam resinoid 4 parts, labdanum resinoid 1 part, ethyl cinnamate 3 parts, and diethyl phthallate 4 parts. Bergamot or jasmin top notes may be built up. The above product is lasting when incorporated into soap.

Perfume Fixative. *U. S. Pat. 2,-169,-055.* A cellulose acetate film containing an essential oil, diethyl phthallate and diacetone.

Perfumes. *Spec. No. 3632/1939, British Patent Office.* Organic compounds such as 1-oxy-4-alkylcyclohexane are colorless compounds with distinctly aromatic qualities.

Perfuming Depilatories, Anon. *Schimmel Briefs No. 57, December, 1939.* A discussion of aromatic materials subject to deterioration when used as perfumes for depilatory products. Satisfactory aromatics may be made from geraniol, citronellol, a-amyl cinnamic aldehyde, ionone, methyl acetophenone, oil petitgrain, geranium oils, oil caraway, and oils from patchouli, vetivert and sandalwood. Amounts of perfume in excess of 1 per cent are wasteful. Suggestions on depilatory manufacture are made.

Pot Pouri, Anon. *Pharm. J.,* **89,** *273, 1939.* Red rose petals 16, sandalwood in coarse powder 8, lavender flowers 4, orris root in coarse powder 2, cloves broken ½, calamus root cut small 2, mace ¼, benzoin 1 ounce, and oils neroli, rose and jasmin of each 200 minims. Artificial oils may be used.

Preparation of C_{10}, C_{12} and C_{14} Aldehydes from Copra Oil, R. Escourrou. *Bull. Soc. Chim.,* **6,** *1173, 1939.* The corresponding chlorides of acids are prepared by heating the acid obtained by saponification of copra oil with phosphorus trichloride in excess and heating at the boiling point for 25 minutes; separation of reaction products and distillation produce substances sought. Other reaction and products of same are described in detail. (Through *C.A.*)

Rarer Essential Oils in Perfumery, A. Wagner. *Soap Perfumery & Cosmetics,* **12,** *685,1939.* Oils described are Aeolanthus, Aframomum, Ageratum, Angelica, Basil, Araucaria, Calamus, Calythrix Tetragona and Cardamom oils. Their possible perfumery applications are mentioned.

Several New Derivatives of a- and b-Ionones, D. Sontag. *Rev. desMarques, Parf. deFrance,* **17,** *212, 1939.* Products described are di-hydro-a-ionone, tetrahydroionone, a-ionol, dihydro-a-ionol, tetrahydroionol, dihydro-b-ionone, tetrahydro-ionone, b-ionol, dihydro-b-ionol, a-ionene, b-ionene, dihydro-ionane and tetrahydroionane. Other derivatives are briefly described.

Smelling Salts, anon., *Drug & Cosm. Ind.,* **45,** *115, 1939.* Smelling salts are composed of cubes of ammonium carbonate perfumed with an alcoholic solution of ammonia stable perfume.

Soap Perfume, Anon. *Mfg. Perfumer,* **4,** *259, 1939.* A sandalwood perfume for an ichthyol containing medicinal soap consists of sandalwood oil 3 parts, geranium oil 1 part, lavender oil 1 part, cedarwood oil 1 part, bergamot oil 0.5 parts, and musk ambrette 1 part. Perfume for a cresylic acid and naphthalene soap consists of equal parts of citronella oil (Java) and cassia oil.

Solid Cologne, Anon. *Soap, Perf. & Cosmetics,* **12,** *356, 1939.* Solid eau de cologne can be made by adding 10 per cent sodium stearate, or by forming sodium stearate *in situ* from 1.3 parts sodium hydroxide and 8.5 parts of stearic acid.

Synthesis of Aromatic Aldehydes, S. Akabori & Y. Senoh. *Bull. Chem. Soc. Japan,* **14,** *166, 1939.* By condensing anisole and formylpiperidine anisaldehyde was formed; resorcylaldehyde dimethylether from m-$C_6H_4(OMe)_2$ and $HCON(C_2H_5)_2$ and phosphorus trichloride. Experimental condition of this new technic of aldehyde synthesis is given. (Through *C.A.*)

Synthesis of 4-Methyl Coumarin, S. Horii. *J. Pharm. Soc. Japan,* **59,** *201, 1939.* Synthesis by means of a phenol, ferric chloride stannick chloride with aceto-acetic ester is described. Beta-methyl umbelliferone may be made by inter-reaction of resorcinol, ferric chloride and aceto-acetic ester. Other coumarin derivatives may be similarly synthesized and are described. (Through *C.A.*)

Vanillin, Colorimetric Method for, A. L. Curl and E. K. Nelson. *J. Assoc. Official Agr. Chem.,* **22,** *684, 1939.* (See item under Section A.)

C Essential Oils

Essential Oils as Disinfectants, S. Gurney-Reid. *Mfg. Chemist,* **10,** *317, 1939.* As a result of war, there is a possibility of establishing essential oil disinfectants. Various considerations in the compounding and formulation.

Flavor Emulsions, C. Johnstone. *Mfg. Confectioner,* **19,** *No. 4, 14, 1939.* Gum acacia is superior as an emulsifying agent for volatile oils, and if the emulsion is homogenized subsequently a more stable product is made. (Through *C.A.*)

Immersion Oil for Microscope. *German Patent No. 677,870.* A composition of 2 parts of hydrocarbon of dispersion $v = 55$ and 1 part of a chlorinated diphenyl of dispersion $v = 27$.

Increasing Solubility of Oils in Water-Soap System, H. N. Holmes. *J. Phys. Chem.,* **43,** *495, 1939.* Pine oil increases solubility of paraffin oils in water containing sodium oleate. Best proportions are 1,4,4,4 and 1,2,2,2 parts by wt. respectively of sodium oleate, water, pine oil (oxidized type) and kerosene. (Through *C.A.*)

Intoxication Due to Vapors of Essential Oils, G. Wohlueter & M. Kleitz. *Arch. Maladies Professionelles,* **1,** *415, 1938.* The medicament is composed of guaiacol, oil of turpentine, tincture of benzoin, eucalyptus oil, beechwood creosote, and eugenol. It is volatilized by steam in an inhalatorium and the air so medicated is inhaled by patients. After several

days exposure, headache, nausea, continual thirst and other symptoms appeared among the attendants. Longer exposures produced bronchitis and other respiratory troubles. Conclusion: This therapeutic method is dangerous to both patient and attendant. (Through *C.A.*)

Making Flower Absolutes and Concretes in India, J. N. Banerji. *Ind. Soap J.*, **6**, *33, 1939.* (See item under Section B.)

Peppermint Oil Substitute. *Brit. Patent, 507,257.* As an example, 50 parts synthetic menthol are mixed with 35 parts menthone, 12 parts menthyl acetate and 3 parts menthyl isovalerianate. Certain distillation fractions of peppermint, eucalyptus or mint oils may also be added.

Rarer Essential Oils in Perfumery, A. Wagner. *Soap Perfumery & Cosmetics,* **12**, *685, 1939.* (See item under Section B.)

U. S. P. Essential Oil Data, Anon. *Givaudanian, December, 1939, p-1.* comments made at a recent meeting of the Scientific Section of the Essential Oil Association meeting together with the Chairman of the U. S. P. Revision Committee. Products discussed were eucalyptol, eugenol, oil bitter almond, and oils of orange, American wormseed, cassia, cinnamon Ceylon, peppermint, rosemary, fennel, juniper, dwarf pine needles, nutmeg, sandalwood, volatile oil of mustard and oil of cade. References to vanillin tests and packaging of essential oils were also made.

D Cosmetics General

Acacia, Tragacanth and Other Gums, Methoxyl Index of, M. M. Janot & P. Gonnard. *Compt. Rend.*, **207**, *594, 1938.* Acacia has an index of zero, tragacanth is 30; values for other gums are given. A method of computing this value is explained. (Through *J.A.Ph.A.*)

Camphor Hand Preparations, Anon. *Mfg. Perfumer,* **4**, *352, 1939.* Because of the popularity of camphor ice for chapped hands, two different formulas containing camphor are suggested. An emulsion consists of mineral oil 50 parts, camphor 2 parts, diglycol laurate 20 parts, and water 120 parts with preservative qs.

Certified Food Dyes, Capillary Analysis of, A. Taub, M. de J. Ortega y Canet. *J. Am. Pharm. Assoc.*, **28**, *578, 1939.* A capillary method of analysis has been adapted to the identification of the 13 water soluble certified food dyes when present individually. A multiple capillarization method has been evolved to separate mixtures of these dyes.

Clarification, Modern Technic, W. Rehdern. *Seifens. Ztg.*, **66**, *138, 1939.* Various equipment for clarifying or filtering pharmaceutical or cosmetic liquid preparations are described.

Cosmetic Manual, J. Kalish, *Drug & Cosm. Ind.*, **45**, *298, 1939.* 29 formulas for hand preparations from a variety of sources. Creams made with stearic acid, glyceryl monostearate, pigment, mucilage and cetyl alcohol are among the types described. Creams for treating chapped skin condition of hands are based on absorption base.

Creams with Pecan Oil, Anon. *Drug Trade News,* **14**, *16 No., 23, 1939.* Cold cream made with pecan oil is said to be a chemist's dream.

Eye Drops, Anon. *Pharm. J.*, **89**, *251, 1939.* The simultaneous presence of zinc sulfate and borax in eye drops produces a precipitation of zinc hydroxide. If borax and boric acid are used, a precipitation also occurs. It is recommended that boric acid be used in place of borax, resulting in a clear product.

Eye Pads, Anon. *Prop. Drugs,* **25**, *No. 10, 11, 1939.* Ice bag shaped cloth pads filled with fragrant herbs to be moistened with warm water and placed over the eyes for ten minutes are described. The effect is beneficial to tired eyes.

Foam Bath. *British patent No. 484,-097.* For a full bath use 1800 grams crystalline aluminum sulfate, 1600 grams sodium bicarbonate, 12 grams saponin and 25 liters of water.

Grinding Process, An Interesting New, H. G. Wolfram. *Bull. Am. Ceram. Soc.*, **18**, *374, 1939.* Action of the micronizer is described. Grinding is obtained by impact of particles against each other without the use of dissimilar faces. (Through *C.A.*)

Hormone Cream, Anon. *Soap, Perf. & Cosm.*, **12**, *787, 1939.* A formula originated by Gattefosse contains: triethanolamine stearate 175 grams, glycerine 50/100 grams, almond or olive oil 50/100 grams, ovarian hormone 15/50,000 Int. Units, mammary hormone product 3 grams, preservative 0.5 grams and perfume qs. This cream should be manufactured under the supervision of capable scientific hands.

Lemon Juice as Cosmetic, J. Hojka. *Ceskoslav, Mydlar Vonavkar,* **15**, *9, 1937.* Diluted lemon juice is adsorbed upon cosmetic bases such as those of olive oil, ethyl alcohol, glycerine, etc., and the resulting product may be applied to delicate skins, too sensitive for application of regular lemon juice which may etch such sensitive skin. (Through *C.A.*)

Mixing Dry Ingredients. *U. S. Pat. 2,164,542.* The apparatus is described in detail and is used particularly for mixing potassium iodide and calcium carbonate.

Nitrogen Compounds and Their Application in Cosmetics, A. Lewinson. *Soap, Perf. & Cosm.*, **12**, *253, 344, 1939.* Discoloration of triethanolamine creams is prevented by addition of sodium alginate to emulsions. Ethanolamines may be used in depilatories because of their binding property for sulphur compounds. Use of other amino compounds is described. Dinitrophenol should not be used in cosmetic preparations due to its toxicity.

Pathological Effects of Certain Glycols and Related Compounds, H. D. Kesten, M. G. Mulinos and L. Pomerantz. *Arch. Path.*, **27**, *447, 1939.* Dipropylene glycol, diethyleneglycol, dioxane, carbitol, methyl carbitol, and butyl carbitol when given either orally or by intravenous injection to animals causes extensive damage to kidneys, sometimes associated with degeneration of liver. These compounds behave alike because of the ether linkage between the glycol molecules. Etylene glycol, propylene

glycol and ethylene glycol diacetate do not behave in this manner, as they do not have the same structure. (Through *C.A.*)

Pectin Solutions, Citrates and the Viscosity of, H. P. Kortschak. *J. Am. Chem. Soc.*, **61**, *681, 1939.* Maximum viscosity is obtained with low citrate concentrations; high concentrations of citrate produce lower viscosity.

Preservative. *U. S. Pat. 2,157,113.* Sodium chlorphenate and other polychlorphenols are activated as preservatives by the presence of borax in equal amount.

Reactions of Cosmetic Preparations, Th. Ruemele. *Seifensieder Ztg.*, **66**, *434, 1939.* Some of the reactions which may be manifest are oxidation, formation of complexes such as those from iron and glycerole, formation of peroxides by perborates in acid media, neutralization of salicylic acid by basic materials, dangerous explosions from perchlorates and mercaptan formation in depilatories.

Removing Pigmentation, Anon. *Drug Trade News*, **14**, *No. 19, 41, 1939.* The anti-oxidant mono-benzyl ether of hydroquinone is believed to be the cause of depigmentation of skin of negro workers wearing rubber gloves containing this material.

Selection of Safe Metals for Chemical Equipment, P. V. Faragher. *Chem. Ind.*, **45**, *682, 1939.* A review of the properties of aluminum alloys in chemical industry and recommendations for their use.

Solidified Mineral Oils, anon., *Drug & Cosm. Ind.*, **45**, *243, 1939.* Mineral oil may be solidified by mixing 60-70 percent of it with 15 to 20 percent petrolatum and 10 to 15 percent wax. Amorphous mineral wax or beeswax may be used. Ceresin gives a translucent product.

Tonic Lotions, C. Couallier. *Rev. des Marques Parf. de France*, **17**, *225, 1939.* A short review of formulation. Weak acids are suggested as astringent materials.

Toxicity of Propylene Glycol and Other Glycols, P. J. Hanzlik, H. W. Newman, W. van Winkle, Jr., A. J. Lehman and N. K. Kennedy. *J. Pharmacol.*, **67**, *101, 1939.* Toxicity of glycols varies with mode of administration. Prolonged feeding of propylene glycol to rats in comparatively large doses had no toxic effects.

Trend of Progress in Cosmetics, H. S. Redgrove. *Pharm. J.*, **89**, *219, 1939.* Parts of a paper read at the meeting of the Society of Chemical Industry. Cosmetics are classified into four groups: (1) decorative, (2) corrective, (3) protective, and (4) curative or therapeutic. Comment of face powders, nail enamels, hair preparations, soapless shampoo and creams in general is made.

Tri-Isopropanolamine Soaps in Cream Making, *P. H. van Itallie. Drug Trade News*, **14**, *No. 18, 23, 1939.* Reporting the work of Fiero, it is found that tri-isopropanolamine soaps are softer than those made from triethanolamine. The oleate is most satisfactory for producing emulsions. Tri-isopropanolamine soaps are better emulsifiers than triethanolamine soaps, but the latter have greater detergent action.

E Deodorants

Aluminum Acetotartrate, A. Ruff. *Wiadomosci Farm.*, **63**, *743, 1936.* A solution of aluminum acetotartrate is best prepared from dissolving 15 parts tartaric acid in 500 parts Burrows solution, evaporating to a b.p. 114° and adding 6.0 parts of acetic acid. After 15 days filter the solution. (Through *C.A.*)

Deodorant, *U. S. Pat. 2,131,235.* Hexamethylenetetramine and methyl p-hydroxybenzoate are combined to form salts and are used to deodorize body secretions.

Deodorant Cosmetics, J. Baltes, *Fette u. Seifen*, **45**, *640, 1938.* A short review of products with brief discussion of ingredients such as aluminum or berrylium salts formaldehyde and derivatives thereof. (Through *C.A.*)

F Depilatories

Chemical Technology of Collagen, A. Kuntzel. *Cuir. Tech.*, **28**, *106, 1939.* A description of collagen from point of view of position among proteins and preparation of leather and other materials from it. (Through *C.A.*)

Depilatory. *Canadian Patent No. 382,241.* Rosin 60, paraffin 2, olive oil 7; forms a plastic mass at 110°F., but is brittle at 90°F.

Depilatory, *Fr. Pat. 840,552.* A stable soluble stannite is used as depilatory. The product may be used as a solution or may be made into a paste with kaolin or finely powdered clay. Details of producing a stable stannite are described.

Depilatory. *Swiss Patent No. 201,442.* A composition of citric acid, an alkali salt of a weak acid such as borax and a carbohydrate. Specific ingredients mentioned are citric acid, borax and gelatin boiled together to produce a hair remover.

Depilatory. *U. S. Pat. 2,128,158.* A composition of hydrocarbons, sulphonates, sodium sulphide solution, magnesia, stannous oxalate and caustic soda.

Depilatory. *U. S. Pat. 2,169,147 & 2,169,148.* An alkaline hydrolyzing agent such as lime together with an aqueous dispersion of sodium ethyl or methyl xanthate or other compounds mentioned. The second patent describes a depilating composition consisting of an alkali hydrolyzing agent such as lime and a xanthate.

Disadvantages of Depilatories and Their Correction, H. J. Henk, *Seifens. Ztg.*, **66**, *375, 1939.* Avoiding irritation after use of alkaline or alkali earth sulphide depilatory may be accomplished by application of neutralizing solutions such as boric, acetic, or salicylic acid. When peroxides or peroxide salts are added to sulphide depilatories, the follicle is attacked as well as the hair shaft.

G Creams General

Cleansing Creams, H. Hilfer, *Drug & Cosm. Ind.*, **45**, *42, 1939.* Two types of cleansing cream are used, the hydrocarbon mixture and the emulsified creams. Three formulas follow a general consideration of formulation. A melting product may be made from 65 parts mineral oil, 15 parts petrolatum, 10 parts paraffin and 10 parts ozokerite. An emulsion is made from 54 parts mineral oil, 10 parts ozokerite, 10.2 parts beeswax, 25 parts water and 0.8 parts borax.

Cold Cream, anon., *Drug & Cosm. Ind.*, **45**, *242, 1939.* A cold cream is made from the following composition: beeswax 12 parts, lanolin 3 parts, mineral oil 47 parts, borax 0.6 parts, water 37.0 parts and perfume 0.4 parts.

Cosmetic Cream. *U. S. Pat. 2,172,118.* A composition of a fatty acid of high molecular weight and the soap of a high molecular weight fatty acid mixed with a wax and a colatile solvent. The mixture forms a massage cream.

Cosmetic Cream. *U. S. Pat. 2,173,203.* A plastic emulsion of fatty and watery material, including small quantities of aliphatic compounds having derivative groups with both hydro- and oleo-philic groups. The mixture forms a vanishing cream.

Cosmetic Manual, J. Kalish, *Drug & Cosm. Ind.*, **45**, *31, 1939.* 83 formulas for vanishing cream assembled from the literature and edited.

Cosmetic Manual, J. Kalish. *Drug & Cosm. Ind.*, **45**, *430, 1939.* One hundred and eight cold cream formulas gleaned from cosmetic literature. Creams containing no borax or lanolin are probably unstable. Borax-beeswax creams are very stable and if water is present in 30 per cent or larger quantity, the emulsion is oil in water. Borax should be present to the extent of 6-8 per cent of the beeswax present. The larger the proportion of mineral oil, the stiffer the cream. Water in larger quantities softens the cream. If more than 60 per cent mineral oil is present the cream is unstable. Water in oil in approximately equal amounts gives a good cream with fine texture and good luster.

Cosmetic Manual, J. Kalish. *Drug & Cosm. Ind.*, **45**, *678, 1939.* Sixty-five formulas for night creams, taken from cosmetic literature. Each of the numerous kinds are described.

Cosmetic Manual, J. Kalish. *Drug & Cosm. Ind.*, **45**, *555, 1939.* Sixty-six formulas for cleansing creams. The main problem in formulating such a cosmetic in the production of a mineral oil gel which is solid at room temperature, will not bleed and will melt readily on application to the skin. Translucent products are obtained from mineral oil, paraffin and petrolatum; opaque products are obtained from mixtures of ceresin, beeswax or even zinc oxide with mineral oil. Emulsified creams made with beeswax and borax or with absorption bases also fall into this grouping. Formulas for all types are given.

Errors in Manufacture of Creams, Anon. *Schimmel Briefs, No. 57, December, 1939.* The importance of special quality of materials, temperature, preservatives, incompatibilities of ingredients and poly or multiple phase emulsions is called to the attention of compounders.

Fatty Alcohol Ointment Bases, F. A. E. Silcock and A. Chamings. *Brit. Med. J. through Mfg. Chemist,* **10**, *322, 1939.* The following base has been found satisfactory: lanette wax 15 per cent, soft paraffin B.P. 15 per cent, and water to make 100 per cent. Several formulas are devised utilizing this ointment base.

Hormones in Face Creams, Ed. *Soap, Perfumery & Cosmetics,* **12**, *663, 1939.* An editorial of an article by H. E. Dale in the *Pharmaceutical Journal.* Recent attempts at administering sex hormones by routes other than subcutaneous show that the sex hormones are practically completely absorbed from application to the skin. It is, however, difficult to control the dosage in this manner.

Mentholated Vanishing Cream, anon., *Drug & Cosm. Ind.*, **45**, *371, 1939.* Melt 20 parts stearic acid and saponify with 1 part potassium hydroxide dissolved in 5 parts of glycerine and 74 parts of water. Mix until cold, and let stand over night. The following day add the menthol 1:1000 and stir in with perfume oils.

Milk Cream Cosmetic. *British Patent No. 509,295.* Toilet creams consisting of pure sterilized cream from cow milk and pure Irish lard are used to compose a cosmetic. Thus a cleansing cream contains 16 ozs. of lard, 24 ozs. cream with hydrogen peroxide and rose otto.

Nourishing Cream, anon., *Drug & Cosm. Ind.*, **45**, *243, 1939.* A nourishing cream is composed of 25 parts lanolin, 30 parts petrolatum, 10 parts mineral oil, 34.2 parts water and perfume 0.8 parts.

Triethanolamine Creams, Anon. *Pharm. J.*, **54**, *142, 1939.* Properties and possible uses of triethanolamine. Several formulas for cosmetic preparations. Triethanolamine emulsions have the drawback of thinning out in cold weather, giving the appearance of being watered.

H Emulsions

Cosmetic Emulsions, *U. S. Pat. 2,164,723.* A base comprises fatty alcohol together with water and a resin alcohol.

Emulsifiable Wax Composition. *French Patent No. 837,418.* A composition of candellila wax 20-95, gum lac wax 5-50, lignite wax 0.5 to 10, stearic acid 1-50, zinc stearate 0.05-20, together with other ingredients if desired. Used for making polish compositions, the mixture is emulsifiable with ammonia or an amine.

Emulsification, Theory of. F. Seelich. *Fette u. Seifen,* **46**, *139, 1939.* A review of methods of producing emulsions of maximum stability.

Emulsifiers and Technical Emulsions, E. H. Kadmer. *Seifens. Ztg.*, **66**, *171, 195, 215, 255, 277, 297, 317, 337 and 357, 1939.* Numerous formulas for preparing various technical emulsions, utilizing among others several proprietary emulsifiers, ammonium linoleate soap, potassium-sodium-triethanolamine soaps, naph-

thenic acid soaps, sulfonated products and methyl cellulose.

Emulsifiers, *Brit. Pat. 501,521.* Stable emulsions of mineral, vegetable and animal fats and oils are obtained by using cyclohexylamine soaps of stearic, oleic, ricinoleic or linoleic acids.

Emulsifier Choice, *Method of.* A. Brothman, *Chem. Met. Eng.*, **46**, *263, 1939.* Methods of determining shear requirements for emulsification. Results obtained are used to aid in the selection of proper equipment. (Through *C.A.*)

Emulsifying Machinery, F. A. Cooper, *Trans. Inst. Chem. Engrs.* **16**, *131, 1938.* Sixty emulsions were prepared by using different equipment. Analysis of resulting products by determining size frequency and fineness of emulsion are combined to suggest design of emulsifying equipment. (Through *C.A.*)

Emulsions, *British Patent No. 501,-521.* More stable emulsions of fats and oils or mineral fats is obtained by using cyclohexylamine soaps of stearic, ricinoleic, oleic or linoleic acids.

Emulsion. *U. S. Pat. 2,177,240.* A wax water emulsion stabilized with a soap of morpholine and a higher fatty acid.

Emulsions, *Preparation of.* L. S. Malowan. *Seifensieder Ztg.*, **65**, *989, 1938.* Fresh vegetable oils are difficult to emulsify, but if stored for a while or treated by blowing at a temperature of 160° for 4-5 days they will readily emulsify. Suggested bases for use are triethanolamine, ammonia and morpholine. Only aged olive oil soap forms good emulsions in this manner. Other vegetable oils should be treated with oliec acid soaps before emulsifying with water.

Emulsion Stability, A. King, L. N. Mukherjee, *J. Soc. Chem. Ind.*, **58**, *243, 1939.* A study of factors affecting stability of emulsions. Effect of particle size is determined by using size frequency technic. Soaps in general form fine emulsions, with sodium better than potassium and ammonium inferior to both. Oleates are better than stearates and more efficient than palmitates. (Through *Soap.*)

Emulsion Stability, *Influence of Electrolytes on.* A. King & G. W. Wrezszinski, *Trans. Faraday Soc.*, **35**, *741, 1939.* The addition of various electrolytes such as hydrochloric acid, sodium hydroxide, aluminum sulphate, sodium phosphate, to emulsions of kerosene and water stabilized with agar, bentonite, egg yolk, lecithin, Daxada, gum acacia and other stabilizers, unaffected the stability of the emulsion. It was impossible to change an oil in water to a water in oil emulsion or vice versa. (Through *C.A.*).

Hydrogenated Castor Oil as an Ointment Base, IV. Hydroxystearic acid. G. W. Fiero, *J. Am. Pharm. Assoc.*, **28**, *598, 1939.* Ethanolamine and isopropanolamine soaps of hydroxystearic acid were superior emulsifying agents to ricinoleic acid, and were almost as good as the soaps of stearic acid. Various tests and standard formulas for creams and emulsions are included.

Liquid Emulsions, S. P. Jannaway, *Drug & Cosm. Ind.*, **45**, *485, 1939.* A basic formula with suggestions for variations is given. Most suitable emulsifiers are triethanolamine stearate, glycol stearate, glyceryl monostearate, potassium and sodium stearate, curd soap, gum mucilages, borax and beeswax. A product similar to the once popular Lait Virginal consists of lanolin 3, soft soap 1, glycerine 4, perfume ½, tincture benzoin 3.0, witch hazel 20 and water 83½ parts. It is recommended that emulsions be subjected to artificial changes in temperature as well as to light in order that their stability be known.

Methyl Cellulose as Emulsifier, H. Clemens & H. W. Read, *Australasian J. Pharm.*, **20**, *191, 1939.* A 10 per cent mucilage of methyl cellulose is used; oil is added to the mucilage. It has an advantage over gums in that it is tasteless and non-fermentible. (Through *C.A.*)

Ointments & Emulsions. W. Kern & H. I. Duerkop, *Deut. Apoth. Ztg.*, **53**, *1140, 1938.* A discussion of ointment and emulsion formulation with illustrations of 44 preparations. Use of various mills and homogenizers is reviewed. (Through *J.A.Ph.A.*)

I Face and Other Powders

Face & Toilet Powders, anon. *Mfg. Perfumer*, **4**, *341, 1939.* A resume of modern practice. Descriptions of raw materials and formulas for compound powders are included. An all purpose powder of medium weight consists of 45 parts kaolin, 40 parts talc, 6 parts magnesium stearate, 5 parts magnesium carbonate, 4 parts titanium dioxide with color and perfumes.

Titanium Stearate, anon. *Perf. & Ess. Oil Record*, **30**, *320, 1939.* Titanium stearate is not a pure chemical, but a mixture of stearic acid and titanium dioxide. It is better to use magnesium stearate and titanium dioxide in face powder in place of it.

Zinc White, Determination of Fineness of. H. J. Muller, *Gummi Ztg.*, **52**, *995, 1938.* Zinc oxide is ground for 15 minutes with igepon (2, 3 or 4 per cent) and is then washed with water into a special burette. The proportion of setting is an index of the fineness of the mass. (Through *J.A.Ph.A.*)

J Make-Up

Lipstick Seizure, anon., *Drug & Cosm. Ind.*, **45**, *41, 1939.* A discussion of the government seizure of imported lipstick purported to contain poisonous substances, as described in section 601 (a) of the Food & Drug Act.

K Shampoo

Henna Shampoo, anon. *Soap Perf. & Cosm.*, **12**, *698, 1939.* A formula originated by Cerbelaud contains Fld. Ext. of henna (50:50) 100 grams, saponin 10 grams, perfume 6.75 grams, alcohol (90 per cent) 80 grams, rosewater 100 grams and distilled water to make one liter. This composition may be perfumed with 5 grams lavender oil, rounded off

with coumarin, bergamot, phenylethyl alcohol, methyl naphthyl ketone and musk ambrette.

Liquid Shampoos, C. A. Tyler, *Soap,* **15,** *No. 11, 21, 1939.* A review of shampoo formulation with suggestions for compounding a liquid shampoo. Soap, sulphonated oil and foaming soapless shampoos are included. A triethanolamine soap type shampoo may be made from 220 parts oleic acid, 200 parts triethanolamine, 160 parts coconut oil fatty acids, 110 parts alcohol and 110 parts water.

Liquid Soap, anon. *Fette u. Seifen,* **46,** *461, 1939.* Use 110 parts oleic acid, 80 parts coconut fatty acids, 100 parts triethanolamine, 15 parts denatured alcohol and 95 parts distilled water. The product is suitable for use as a shampoo.

Shampoo. Anon. *Drug & Cosm. Ind.,* **45,** *627, 1939.* In utilizing tincture of green soap as a shampoo material, mix it with equal part of a 20 per cent solution of potassium coconut oil soap. A lathering product will thus be formed.

Shampoo, *U. S. Pat. 2,166,127.* Mono-ethanolamine sulphate is used as a thickener for shampoo in which 5 per cent of lauryl monoethanolamine sulphoacetate is present as a detergent. The resulting product is a viscous hair shampoo.

L Soaps

Active Oxygen in Soap Powders, C. Bergell, *Seifens, Ztg.,* **66,** *750, 1939.* (See item under Section A.)

ASTM Soap Specifications, anon. *Soap,* **15,** *No. 12, 61, 1939.* Specifications set up at a recent meeting of the A.S.T.M.A. Specifications for new detergents, sulphonated oils were considered impossible to formulate at this time.

Bleached Soap, *German Patent No. 671,332.* Tartaric, citric or boric acids are added to solid or soft soap, producing a bleached soap.

Bleaching Soap Powder, anon. *Seifenseider Ztg.,* **66,** *631, 1939.* A powdered soap made from 15 parts coconut fatty acids, 18 parts tallow fatty acids, 17 parts caustic soda 38° Bé, 5 parts sodium silicate (36-38°) 5 parts trisodium phosphate, 23 parts anhydrous soda ash and 17 parts water. The prepared powdered soap is then mixed in the ratio of 9 parts soap powder and 10 parts sodium perborate.

Carpet Cleaner, *U. S. Patent, 2,-165,586.* A composition of 100 parts buckwheat flour, 24 parts light petroleum, 2 parts aluminum stearate, 2 parts salicylic acid and 60 parts water.

Cleansing Agent for Metals, *A New One.* J. Hojka, *Ceskoslov. Mydlar Vonavkar.* **16,** *68, 1938.* Presence of cobaltammines in cleansing powders or polishes has a less destructive effect on tin, aluminum and alloys of these metals.

Cleansing Product, *Swiss Patent, No. 203,097.* A cleanser for glass consists of distilled water, turpentine, wax, carbon tetrachloride, paraffin, montan wax, japan wax potash and ammonium acetate. The product may also be used to clean leather or wool.

Cleansing Product, *Swiss Patent No. 203,146.* A composition of triple-earth, water, ammonia, alcohol, olein, benzene and ammonium acetate. The product is useful for cleaning metal or painted surfaces.

Coconut & Castor Oil, *Use in Soaps,* V. Moiseev. *Masloboino Zhirovoe Delo, 1939, No. 2, 26.* As much as 10 per cent castor oil may be used in soapstock. Saponification and lathering power of castor soap is poor. Coconut oil in amounts not over 10 per cent may also be used. (Through *C.A.*)

Composition & Detergency *of Fit & Nigre.* R. L. Dutta, S. C. Sen & P. K. Ghose, *Ind. Soap J.,* **6,** *4, 1939.* A preliminary communication of detergency value of fit, neat and nigre. The charge for this work consisted of a tallow-Mowha mixture having a hardness number of 279.6 calculations of which are shown.

Detergents, *U. S. Pat. 2,175,781.* A composition of sodium silicate and other sodium compounds of the group phosphates, borates or bicarbonates.

Eczema Due to Soap, H. T. Schreus, *Med. Welt,* **13,** *222, 1939.* In cases of hypersensitivity to alkali, no real hypersensitivity exists, but a sensitivity is brought on by physico-chemical reactions. Alkali eczemas are best treated by using alkali free soaps. (Through *C.A.*)

Filled Soap, *A. K. Menon, Ind. Soap J.,* **6,** *29, 1939.* A properly fitted soap taken straight from the pan contains 30 per cent of water and about 63-4 per cent of fatty acids. This soap may be cheapened by adding fillers such as sodium carbonate, and potassium silicate of soda and potash. Other fillers are borax, Glauber's salt, sodium chloride, mineral matter, clay and fine silicious earth, chalk, talc, starch and mineral waxes. The effect of such additions on the final soap is mentioned.

Influence of Surface Activity *on Washing Power of Soaps.* H. J. Henk, *Seifens. Ztg.,* **66,** *2, 1939.* Cation active soaps are more effective cleansers as they neutralize the charge on dirt particles causing them to adhere to the cleansing object. Trimethyl-lauryl-ammonium-chloride is given as an example of this type of surface active material.

Liquid Soap, anon. *Fette u. Seifen,* **46,** *461, 1939.* (See item under Section K.)

Metasilicates in Detergents, Use of. W. Kling & O. Schmidt, *Seifens. Ztg.,* **66,** *626, 1939.* Metasilicate may be used to advantage in washing fibers.

Non-Caking Powder Detergent, *Canadian Patent No. 383,382.* The addition of a small amount of aluminum phosphate prevents caking in a trisodium phosphate and silica detergent mixture.

Oxygen in Soap, *Determination of.* C. Bergell, *Seifensieder Ztg.,* **66,** *750, 1939.* (See item under Section A.)

Pine Tar Shampoo, anon., *Drug & Cosm. Ind.,* **45,** *114, 1939.* Tar to use is beechwood product, which is dis-

solved in coconut oil prior to saponification. Use 3 per cent in product.

Preparation of Sodium Hexametaphosphate, A. K. Bronnikov and V. K. Postnikov, *J. Applied Chem. U.S. S.R.*, **11**, *1295, 1938.* (In French). Methods of preparing various phosphates with analytical data on products made.

Pyrophosphate Cleaner, *U. S. Patent No. 2,159,381.* Pyrophosphates are used together with compounds like the alkali metal salt of oleic acid methyl tauride together with sulphated fatty alcohols.

Reaction of Soap Manufacture, L. Lascaray, *Fette u Seifen*, **46**, *531, 1939.* Conditions required for saponification are described. Fat or alkali are preferably emulsified in each other. Soap tends to stabilize an emulsion of alkali in oil when hot, while in the cold, the reverse type of emulsion seems to be more stable.

Reversed Soaps, J. Warwicke. *Soap*, **15**, *No. 10, 25, 1939.* Notes on cation-active soaps. Difference between wetting agents, soap and other "active" materials are discussed. Soap and the sulphated alcohols belong to the anion active class of products. Derivatives of pentavalent nitrogen formed by the addition of an acid chlorides to tertiary amines are cation active substances.

Saddle Soap, anon. *Seifenseider Ztg.*, **66**, *632, 1939.* The following mixture may be used to make a saddle soap: palm oil 14, resin 1 and caustic soda 38°Be 7 parts. A semi-boiling process is used. After formation of the soap add 35-45 parts water, 5 parts glycerine and 0.2 parts talcum and the mixture is poured into molds. Beeswax may also be added.

Salts of Triethanolamine, Detergency. G. W. Fiero, *J. Am. Pharm. Assn.*, **28**, *284, 1939.* A photoelectric apparatus is used and described. Pure soaps were used in washing tests. The laurate, oleate, myristate and palmitate in order named, had detergent action, but none was as good as ordinary soap. Triethanolamine soaps of mixed fatty acids were effective detergents in following order: tallow fatty acids, coconut oil fatty acids and red oil.

Soap. *U. S. Pat. 2, 169,829.* A toilet soap containing 20-80 per cent boric acid and 80-20 per cent water soluble synthetic alkyl sulphonate detergent fabricated into a soap cake.

Soap For Chain Conveyors. A. H. Warth, *The Crown*, **28**, *No. 5, 16, 1939.* A few comments on the properties required in a soap used to lubricate chains of conveyors. A good soap should be made from olive oil foots, completely but not freely soluble in water, soluble in 10 parts warm alcohol and free from alkali. It should not sweat. Take the advice of a manufacturer of bottling equipment in buying such soap.

Soap for Painted Surface, *U. S. Patent 2,158,663.* Coconut oil is saponified with sulphite lye obtained from the cellulose industries along with fresh soda lye.

Soap, *Increasing Cleansing Power.* J. Hojka., *Ceskoslov Mydlar Vonavkar*, **15**, *133, 1937.* The cleansing ability of soaps with and without pumice, magnesia, chalk, silica gels, white lead, diatomaceious earth and mineral flours is described. (Through *C.A.*)

Soaps & Similar Long Chain Derivatives As Simple Half-strong Electrolytes in Dilute Solution. J. W. McBain, *J. Phys. Chem.*, **43**, *671, 1939.* Dilute solutions of potassium soaps of fatty acids C_6 to C_{12} behave similarly to solutions of dichloracetic acid. Soaps behave as univalent electrolytes when considered from the ionic strength standpoint. The charges are spaced so far apart that they are independent of each other. (Through *C.A.*)

Soap & Soap Free Bubble Baths, J. Augustin, *Seifens. Ztg.*, **66**, *315, 335, 1939.* Usefulness of trade named foaming agents in conjunction with water softeners, soaps, etc., is reviewed.

Soap Blemishes, J. Grosser, *Ceskoslov. Mydlar Vonavkar* **16**, *118, 1939.* Spots in soap showed on analysis to be insoluble soaps of calcium, iron, copper, lead and zinc. The metals were believed to come from the water used in the manufacture of the soap. (Through *Soap.*)

Soap Drying, Rate of. S. C. Ghose, *Indian Soap J.*, **6**, *41, 1939.* The rate of drying for three soaps of different composition is given. Soap containing 30 parts of tallow, 20 parts of coconut oil and 5 parts kapok oil dried slower than other soaps.

Soap Hardness, A. Rayner, *Soap, Perf. & Cosm.*, **12**, *325, 1939.* Hardness is not dependent on texture of original fat. It is given by palm and coconut oils in particular. Softness is conferred by liquid oils containing high proportions of unsaturated fatty acids more unsaturated than oleic acid. Other factors affecting hardness are reviewed.

Soap Powders, J. M. Vallence, *Soap, Perfumery & Cosmetics*, **12**, *765, 1939.* The utility of pyrophosphates is described. The addition of 10 per cent to soap powders for general consumption is recommended.

Soap Products, *Ger. Pat. Appl. 51, 291.* Solutions of soap-like products suitable for use in liquid soap or shampoo are obtained by condensing treithanolamine with higher fatty or resin acids with albuminoid substances.

Soft Soap, *German Patent No. 678,841.* A liquid potassium soap is improved by adding to it a combination of 40 mol per cent of $NaPO_3$ and 60 mol per cent KPO_3

Soft Soap, *French Patent No. 837,509.* The formula contains 100 parts oil, 50 parts rosin, 150 parts caustic soda 22° Be. The resulting product is a soft soap.

Stabilizing Color of Soap, *U. S. Patent No. 2,162,255.* Stannic chloride or sulphate 0.1 per cent is added to soap to prevent color changes on storing soap.

Stains & Blemishes in Soap, *Undesirable formation of.* J. Grosser, *Ceskoslov. Mydlar Vonavkar*, **16**, *118, 1938.* Tarnished spots show the presence of insoluble soaps of calcium iron, copper lead and zinc. The metals came from waters used in manufacturing the soaps. (Through *C.A.*)

Superfatted Soap, *U. S. Pat. 2,157,022.* A substance such as diacetyl polyglycerol ether or propionate of polyglycerol cyclohexyl ether or the like is incorporated in soap as a superfatting agent.

Tetrasodium Pyrophosphate, J. M. Vallance, *Soap, Perf. & Cosm.*, **12**, *765, 1939.* A review of the properties and application of this new chemical in the soap and allied industries.

Zinc White in Soap, A Foulon, *Chemical Products, Aug., 1939.* Zinc white absorbs perfumes into itself making it an effective perfume fixative as well as a soap whitening agent. Problems of whitening soap are reviewed. (Through *Soap.*)

M Dental Preparations

Coating Inside of Collapsible Tin Tubes, *U. S. Pat. 2,152,156.* A lacquer containing a phenolic resin together with tin or tin oxide is applied into the inner side of tin tubes thus protecting them from corrosion by the contents.

Dentifrice, *Canadian Patent No. 383,894.* Dimethyl cellulose is a foam producing agent used in conjunction with dry fiber and glycol stearate.

Dentifrice. *U. S. Pat. 2,172,743.* An intimate mixture of sodium perborate, a thick gel-like liquid containing a large proportion of water soluble boric acid ester of polyhydric alcohol such as glycol or glycerine. The boric ester must be inert to the perborate.

Dentifrice, *Ger. Pat. Appl. 139,295.* A dental cream consisting of a base of myrrh. Resin of myrrh is heated with starch and borax paste, and the resulting mixture is added to the usual dentifrice mass.

Denture Cleaner, anon. *Soap, Perf. & Cosm.*, **12**, *788, 1939.* A formula quoted from Pharmaceutical Journal consists of: sodium perborate 240 grains, sodium chloride 480 grains, anh. magnesium sulphate 30 grains, calcium chloride 30 grains, anh. sodium carbonate 30 grains, methyl salicylate 1 minim, menthol 2 grains and oil peppermint 12 minims.

Effects of Dental Detergents *on Cilliary Activity.* R. L. Perrine, A. H. Throndson & M. L. Tainter, *J. Dental Research* **18**, *81, 1939.* Hard and soft soap, sodium alkyl sulphate, sodium perborate and borax all had a toxic effect on the ciliated epithelium of the frog esophagus. Volatile oils, menthol, camphor, thymol, boric acid, sodium bicarbonate, glycerine, alcohol, calcium carbonate, magnesium carbonate, salt and tricalcium phosphate, among others, had no toxic effects in the concentrations studied. (Through *C.A.*)

Liquid Dentifrice, anon. *Glass Packer,* **18**, *694, 1939.* A discussion of the first dentifrice, tooth powder *vs* tooth paste, and history and development of the present day liquid dentifrice.

Liquid Dentifrice, anon. *Drug & Cosm. Ind.*, **45**, *615, 1939.* A new wetting agent with but faint taste which can be covered with coumarin is used. Mix 7.8 parts of the wetting agent, with 22 parts alcohol, 2.1 parts sodium alginate and 68.1 part water. Method of formulating is given.

pH of Dental Plaque, R. M. Stephan, *J. Dent. Research,* **17**, *251, 1938.* Average pH was 5.9; pH of debris from tooth cavities averaged 5.2; plaques may have a pH as low as 4.6 at which enamel will dissolve under mouth conditions.

Sugar & Teeth, R. Wohinz, *Zahnarzliche Mitteil,* **29**, *No. 4, 1938.* Saliva lacks invertase, and hence sugar has no destructive action on teeth. Workers breathing air containing flour or yeast may suffer considerable tooth decay resulting from the fermentation of sugar by invertase present in flour and yeast. Sucrose alone has no action on teeth. (Through *C.A.*)

N Antiseptics

Aminoaryl Sulfones, *Swiss Patent 200,667.* An aminoaryl sulfone such as (p-hexadecyl-sulfonyl-phenyl) methyl-sulfate of trimethylamonium is a plastic mass useful as a wetting agent, fungicide or bactericide.

Antiseptic Cream, *U. S. Pat. 2, 157,831.* An alkaline stearate composition containing higher fatty alcohols with sodium p-toluenesulfonchloramid, or other chlorine yielding substance.

Bactericide. *U. S. Pat, 2,176,890.* A stabilized bactericide containing an alkaline solution of mercuriated phenol together with a colloid such as gelatin, acacia, pectin or lysalbinic acid and others.

Essential Oils *as Disinfectants.* S. Gurney-Reid, *Mfg. Chemist,* **10**, *317, 1939.* (See item under Section C.)

Germicide. *U. S. Pat. 2,171,491.* A bromo alkyl meta diphenol comprises an active germicide.

Germicidal Preparations, *Containing Chlorinated Phenols,* Q. Moore & J. N. Walker. *Pharm. J., 507, 1939.* The addition of ti-tree oil or pine oil to chlorinate phenols such as p-chlor-m-xylenol, or vice versa, affects the results of bacteriological test on both *S. aureus* and *B. typhosus.* If there is more essential oil present than of the phenol, the effectiveness against *S. aureus* is lowered.

Low Temperature Sterilization, *Destruction of Bacterial Spores.* C. E. Coulthard, *Pharm. J., 142, 79, 1939.* Sterilization with chemicals at different temperatures and for over various periods of time showed p-chlor-m-cresol and phenyl-mercury-nitrate capable of destroying spores of *B. mesentericus* and related organisms. Solutions adjusted to pH of 2.25 were readily sterilized *without* addition of germicides.

Metallic Naphthenates, J. S. Trevor, *Chemical Ind.*, **45**, *661, 1939.* A discussion of industrial applications. Copper, zinc and aluminum derivatives are mentioned with their particular fields of usefulness. Copper naphthenate has considerable effect against various types of micro-parasites.

Methyl p-Hydroxybenzoate, *Antiseptic Properties of, etc.* M. A. Brac-

cesi, *Boll. Soc. ital. biol. sper.*, **14**, *265, 1939.* The chemical has marked antiseptic action and is innocuous to laboratory animals and man in doses considerably greater than those used in common practice. (Through *C.A.*)

Methyl p-Hydroxybenzoate, *Toxicity of, etc.* M. Simonelli & R. Marri, *Boll. Soc. ital. biol. sper.*, **14**, *291, 1939.* Methyl p-hydroxybenzoate is practically non-toxic, has no effect on conjunctiva and hence may be used in preparations used in the eye. It is a good antiseptic and disinfectant. (Through *C.A.*)

p-Nitrobenzoic Acid, *Bactericidal Action of.* R. L. Mayer & Ch. Oechslin, *Arch. intern. pharmacodynamie*, **62**, *211, 1939.* Several products were prepared and tested on animals and found to be effective against some bacteria.

Phenylmercuric Aliphatic Hydroxycarboxylates, *U. S. Pat. 2,157,009.* Method of producing compounds such as di-phenylmercurictartrate or phenylmercury citrate, lactate, gluconate, ricinoleate or similar products.

Phenyl Mercuryglycolate, *U. S. Pat. 2,157,010.* This compound is a fungicide and germicide and is produced by heating a water suspension of phenylmercuric hydroxide and glycolic acid.

Phenyl Mercury Salts, *U. S. Pat. 2,165,533.* Phenyl mercury hydroxide is prepared according to specification, then producing a salt thereof with a suitable acid.

Skin Sterilizing Agents, anon. *Pharm. J.*, **89**, *334, 1939.* An abstract from another journal. The following order of decreasing effectiveness as skin sterilizers: tincture O-chloromercuriphenol with secondary amyl tricresol, 0.1 per cent, propyl mercuric chloride, 0.1 per cent, pheny mercuric nitrate, 0.068 per cent, pheny mercuric chloride, 7 per cent tincture of iodine, 3.5 per cent tincture of iodine, 0.1 per cent tincture of mercurithiobenzoate, 0.1 per cent mercuric chloride, 0.5 per cent tincture 5-hydroxy-mercuri-4-nitro-o-cresol, 2 per cent surgical tincture mercirichrome, 3 per cent picric acid, 0.1 per cent mercuric oxycyanide and 70 per cent alcohol.

Sodium Lauryl Sulfate, *Selective Bacteriostatic Action of.* J. M. Birkeland & E. A. Steinhaus. *Proc. Soc. Exptl. Biol. Med.*, **40**, *86, 1939.* A 1 per cent solution of sodium lauryl sulfate inhibited the growth of all species of molds and Gram-positive bacteria used. Only 3 out of 20 Gram-negative bacteria were inhibited. Typhoid bacillus grew in the presence of 10-15 per cent of the chemical. (Through *C.A.*)

O Hair Preparations

Cholesterol Hair Tonic, anon. *Perf. & Ess. Oil Record*, **30**, *283, 1939.* Redgroves formula for such a product consists of cholesterol 0.4 parts, carbon terachloride 4.0 parts, isopropyl alcohol 52 parts, glycerine 3 parts orange flower water to make 100 parts to which perfume may be added.

Hair Cream, anon. *Perf. & Ess. Oil Record*, **30**, *282, 1939.* An emulsified hair cream may be made from 10 parts white wax, 130 parts mineral oil, 15 parts water and 1 part borax.

Hair Growth, *Cholesterol Content of Blood During,* T. Kodama, *Nagoya Igakkai Zasshi*, **48**, *79, 1938.* While new hair was growing on de-haired rabbits, the cholesterol content of the blood dropped to a low level. When growth was complete, the cholesterol content returned to normal. Injections of anterior pituitary hormone during the growth period caused a more rapid hair growth and increased blood cholesterol. Injections of either male or female hormone had no effect and in some cases were slightly inhibitory to hair growth. (Through *C.A.*)

Hair Fixatives, E. Mahler, *la Parf. Moderne*, **33**, *285, 1939.* Eight formulas for preparing hair preparations used to keep the hair in place. A preparation based on Karaya Gum consists of 40 parts of gum, 5 parts of borax, 1 part preservative, 1 part color, 2 parts soluble perfume and 1000 parts water.

Hair Lotion, *Belg. Patent 426,750.* Balsam and birch roots are mixed with lilac twigs, holly and birch leaves, petroleum, alcohol and flower oils. After boiling the mixture is filtered.

Hair Oil, anon., *Drug & Cosm. Ind.*, **45**, *242, 1939.* A mixture of 10% peanut oil in mineral oil preserved with hydroquinone and methyl p-hydroxybenzoate suitably tinted with oil soluble color.

Hair Rinse, *U. S. Pat. 2,167,502.* Mixtures of phthallic acid, potassium acid phthallate and furoic acid with or without added color. Typical composition contains 450 grams phthallic acid, 45 grams potassium acid phthallate and 505 grams furoic acid. One gram of this mixture is sufficient for one rinse.

Lead Hair Restorer, anon. *Perf. & Ess. Oil Record*, **30**, *320, 1939.* Providing the lead acetate content is less than 4 per cent, such a product is exempt from Poison Regulations in England. Analyses of several products on the British market showed sulphur content of 1.3 to 3.2 per cent, lead acetate 0.13 to 3.2 per cent and glycerine from 5.7 to 19.0 per cent.

Identification of Organic Bases in Hair Dyes. J. Deshusses, *Mitt. Sebensm. Hyg.*, **30**, *No. 1-2, 10, 1939.* (See item under Section A.)

Metol Containing Hair Dye, *Toxicity of.* Welwart, *Deut. Parf. Ztg.*, **24**, *48, 1938.* Metol is not needed for hair dyeing except for producing extremely blond shades. It is extremely injurious to the skin.

Products for Scalp Hygiene, *Fr. Pat. 837,922.* The active materials consist of four phenols, thymol, carvacrol, romarin and eugenol, fixed by resins, thus rendering the antiseptic action more permanent.

Spot Tests, *New Tests for Amines such as P-Phenylenediamine.* O. Frehden & L. Goldschmidt. *Mikrochim. Act.*, **1**, *338, 1937.* (See item under Section A.)

Stabilizing per Compounds, *U. S. Pat. 2,155,704.* Hydrogen peroxide or substances such as sodium per-

borate which give hydrogen peroxide on treating with water are made stable by adding silica gel and removing it after due time.

P Sun Tan Preparations

Active Wavelength in Producing Tan, M. Luckiesh & A. H. Taylor, *J. Am. Med. Assn., 112, 2510, 1939.* A more lasting tan is produced by the wavelength 3,650 A.u., while those wavelengths between 2500 and 2600 A.u. produce a strong erythema. Longer wavelengths give a more tanning effect with less burn.

Analysis of Skin Pigments After Exposure to Sunlight, E. A. Edwards and S. Q. Duntley. *Science,* **90,** *235, 1939.* Carotene and melanin are present in the exposed area. First effect of irradiation is hyperemia, reaching a maximum in 11 hours. In two days melanin increased, reaching a maximum in 19 days, finally returning to normal. (Through *C.A.*)

Behavior of Cholesterol After Sea and Sun Bathing, H. Curschmann. *Klin. Wochschr.,* **18,** *436, 1939.* Blood cholesterol was increased 6 to 66 milligram per cent by sun bathing, and 4 to 112 milligram per cent by sea bathing. Persons showing lower increases were those already accustomed to bathing. (Through *C.A.*)

Cholesterol Content of Skin, etc., A. Knudson, S. Sturges & W. R. Bryan. *J. Biol. Chem.,* **128,** *721, 1939.* Total cholesterol content of the skin of albino rats exposed to ultra-violet light at the rate of 20 hours per day was increased and present in ester form. The increase on the face was as much as several hundred per cent but averaged 100 per cent. Tumors forming as a result of ultra-violet irradation are rich in cholesterol in free form and bear no relation to duration of exposure. (Through *C.A.*)

Evaluation of Skin Protection Against Ultra-Violet Rays, A. Bachem & B. Fantus. *Arch. Phys. Therapy,* **20,** *69, 1939.* Spectroscopic tests show yellow petrolatum to be superior to white petrolatum. Titanium dioxide is most efficient of powders tested, and calamine next. Ichthyol, caramel, menthyl salicylate are more efficient than quinine oleate. Volatile oils such as lemon, lime orange or cologne are photosensitizers. A formula for cuticolor ointment is given (Through *C.A.*)

Sensitization of Skin to Ultra-Violet Light, Fr. Bering, *Strahlentherapie,* **60,** *16, 1937.* Acid diets increase sensitivity, while alkaline and salt free diets cause a marked attenuation of resulting erythema. Effect of various chemicals taken orally or by injection on susceptibility to erythema resulting from exposure to ultra-violet light is described. Differences of sensitivity of skin in disease to ultra-violet light is described. (Through *C.A.*)

Skin Protecting Composition. *Ger. Pat. 676,103.* A product to protect the skin from ultra-violet irradiation, containing substances such as sodium 2-phenyl-benzimidazole-5-sulphonate and 2-phenylbenzoxazole. The products absorb wave lengths up to 3250 A.u. but scarcely absorb higher ones.

Sunscreen, *U. S. Pat. 2,134,947.* Products such as cinnamylacetophenone, dibenzalacetone and dibensylbutadiene are used in concentrations of 1 per cent to absorb ultra-violet light of wave length 3000 to 4000 A.u.

Sunscreen. *U.S. Pat. 2,175,213.* A composition consisting of a vehicle in which is dispersed a flaked light weight metal powder. The mixture when applied to the skin prevents or reduces sunburn.

Q Miscellaneous

Abrasives, Their Use In Soap Products, R. J. Roley. *Soap,* **15,** *No. 12, 24, 1939.* Abrasives used vary in hardness from 1 to 6.5 on Moh's scale and in mesh size from 40 to 200. Not only the hardness but the particle shape also affects abrasiveness. Each type of common abrasive is considered in detail.

Automobile Polish. *Fr. Patent 838,684.* A composition of paraffin 48, turpentine oil 27, petroleum 20 and aqueous ammonia 5 per cent respectively. The mixture may be used on automobile bodies or other varnished surfaces.

Bath Preparations, W. Peyer. *Pharm. Zentralhalle,* **80,** *337, 1939.* Products based on oxygen liberation, pine needle extract or substitute, humus materials, valerian, sulphur, sulphur iodide and wheat bran among others are described. (Through *C.A.*)

Changes in Respiration, *Following Irradiation with X-Rays (Mouse Skin),* J. C. Fardon, W. A. Sullivan, G. W. Brotzge, Sister M. K. Loeffler & Sister M. B. Andrus. *Studies Institutum Divi Thomae,* **2,** *203, 1939.* At the start, there is an inhibition of respiration but after a short period a definite stimulation follows. (Through *C.A.*)

Colloidal Kaolin, J. Hojka. *Ceskoslav. Mydlar Vonavkar,* **16,** *6, 1938.* Czechoslovakian colloidal kaolin is being used in tooth paste, cosmetic powders and creams and in skin preparations. (Through *C.A.*)

Glass Cleaner. *Canadian Patent No. 383,826.* A watery solution containing 10 to 20 per cent of 1,4-dioxane.

Humectant. *U. S. Pat. 2,172,357.* A composition free of mannitol and alkali sulphate consisting of sorbitol in the main part and iditol, talitol and a lesser quantity of branched chain desoxy hexitol and pentitol.

Lubricating Jelly, Anon. *Drug & Cosm. Ind.,* **45,** *754, 1949.* A satisfactory product contains 3 per cent tragacanth, small amount of alcohol, glycerine and a preservative complete the preparation. Use about 0.1 per cent of methyl p-hydroxy benzoate as preservative. Before tubing, the mixture should be allowed to stand a few days so as to reach maximum viscosity. Avoid the use of heat in manufacture if discoloration is undesired.

Metal Polish. *U. S. Pat. 2,164,810.* A composition of silica 15, ammonium carbonate 1, ammonium soaps of cocoanut fatty acids 4, and water about 20-25 parts.

Metal Polishes, Part II, C. A. Tyler. *Soap,* **15,** *No. 10, 103, 1939.* A continuation. An ammonia soap in naphtha suspends the abrasive used. Other variants are given. Eight formulas. Federal Polish Specification and formulas for silver polish are included. A naphtha base polish can be made from 4 per cent red oil, 2 per cent of ammonia water 26°Bé, 30 per cent silica and 64 per cent petroleum naphtha 45.5°Bé.

Milk of Magnesia. *U. S. Pat. 2,178,983.* Lime is slaked after calcining with alkali or alkaline earth nitrates, alkali metal chlorates and calcium chloride with traces of boric acid or alkali borates.

New Car Polishes, Anon. *Mfg. Chemist,* **10,** *327, 1939.* Four formulas for cleaner polish and for straight car polish.

Polarized Light, for Examining Skin. *Drug Trade News,* **14,** *No. 22, 33, 1939.* A description of an instrument for use in examining skin under polarized light and advantages gained from use of the same.

Stabilizing Hydrogen Peroxide, S. M. Triton. *Pharm. J., 89, 103, 1939.* Stabilizers tested were acetanilide, phenacetine, benzoic acid, thiourea, urea, hexamine. As a result, urea is found to be a suitable stabilizer for pharmaceutical use, phenacetine being a good second. Hexamine may be satisfactory, though other methods of assay must be used. Sulphuric acid stabilization should be abandoned.

Temperature Indicator. *German Patent No. 679,796.* Temperatures of engines is indicated by the color change in a coating of carbonates such as those of copper, manganese, nickel, iron, silver or bismuth.

R Oils and Fats

Antioxidant. *U. S. Patent 2,124,749.* The addition of 1 per cent or less of catechol monododecyl ether or other similar compound acts to inhibit rancidity of oils and fats.

Antioxidants for Fats. *U. S. Pat. 2,158,724.* The addition of 0.1 per cent of enol esters such as acetalacetone oxalate ethyl or butyl esters, mesityl oxide oxalate tetrahydrofurfuryl ester and others inhibits the oxidation of oils such as soybean, olive or cottonseed.

Castor Oil, Effects of Heat on. F. Hawke & B. Segal. *J. Soc. Chem. Ind.,* **58,** *270, 1939.* The effect of heating castor oil up to 325° at standard, reduced and increased pressures is studied. The major chemical change is not one of polymerization but one of decomposition. Heat treated oil more readily forms sludge than raw oil. Closely controlled temperature and pressure must be maintained in order that heat treatment make the resulting oil miscible with mineral oil. (Through *Pharm. J.*)

Elaidic Fats. *German Patent No. 674,752.* Changing oils and fats to esters of elaidic acid is accomplished by using an acid in the presence of selenium.

Elaidinization of Linoleic Acid, J. P. Kass & G. O. Burr. *J. Am. Chem. Soc.,* **61,** *1062, 1939.* The process is carried out with the aid of nitrogen oxides or selenium. Two products form, one a linolelaidic acid and a liquid isomer in impure form. Properties of both fractions are described.

Expansion of Waxes, *Coeff. of Lowe. Seifens. Ztg.,* **66,** *105, 1939.* The usual methods for determining expansion or specific gravity may be applied to waxes, either while molten or in the solid form.

Heat, Effect of, on Fat Stability, J. Kochling & K. Taufel. *Fette u. Seifen,* **46,** *206, 1939.* Fats heated to 150-200°C increase the rate of formation of peroxides which accelerate oxidation. Fats heated above 200° are more stable as peroxides are destroyed. Nevertheless, heated fats deteriorate more readily than unheated fats, probably because of the destruction of some natural inhibiting agents.

Wool Fat. *German Patent No. 656,556.* Wool fat is split into fatty alcohols and fatty acids by the following procedure: (1) Long steam distillation at standard room pressure and 400°C temperature, and (2) saponification of the distillate with subsequent distillation at reduced temperature and pressure. The non-saponifiable alcohols distil off. The soap residue is treated and the fatty acids recovered.

Wool Fat Product. *Ger. Pat. 672,720.* Water free lanolin is dissolved in petroleum ether and treated with sodium while heated on a water bath. After filtration, the product so obtained is suitable for use as a cosmetic.

Wool Fat Products. *German Patent No. 674,874.* Metallic sodium is heated with wool fat for one hour at 150° to give a wax-like product producing colloidal dispersions in water.

S Shaving Preparations

Electric Razor Lotion, Anon. *Pharm. J.,* **89,** *273, 1939.* Witch hazel 2 fl. ounces, glycerine 1 fl. ounce, industrial spirit ½ fl. ounce and rose water to make 4 fl. ounces. Two grains menthol may be added. This lotion is used after shaving with electric razor.

Shaving Cream. *Brit. Pat. 499,761.* A preparation consisting of one or more alkaline earth such as magnesium carbonate and a minor proportion of zinc oxide and soap. Fillers and a binder are added.

Shaving Cream. *U. S. Pat. No. 2,164,717.* Phosphatids or aromatic sulphonic acids and their sodium salts to soften the beard and may be incorporated into vanishing type cream.

Shaving Cream. *U. S. Pat. 2,167,180.* Aromatic nucleus of wetting agent described in *U.S. No. 2, 164, 717* may contain sulphonic acid group as well as other groups such as halogen or alkyl.

Shaving Creams, E. Bourdet. *Rev. des Marques Parf. de France,* **17,** *221, 1939.* The effect of adding different ingredients to shaving cream and properties of resulting product.

Shaving Creams, H. L. Holborow. *Mfg. Perfumer,* **4,** *249, 1939.* A discussion. Cocoanut oil increases lathering; glycerine maintains moisture; mineral oil is a lubricant but affects wetting out; lanolin is a good superfatting agent; triethanolamine stearate reduces bubble size of the lather. A cologne perfume is made from 300 parts lemon oil, 100 parts French lavender, 75 parts Spike lavender, 200 parts bergamot oil, 65 parts rosemary oil, 250 parts Petitgrain and 10 musk xylol.

Shaving Products. *British Patent No. 499,761.* A composition of one or more alkaline earths such as magnesium carbonate, zinc oxide and soap. A binder and filler such as tragacanth may be used.

T Skin Absorption

Analysis of Skin Pigments After Exposure to Sunlight, E. A. Edwards and S. Q. Duntley. *Science,* **90,** *235, 1939.* (See item under Section P.)

Changes in Respiration, Following Irradiation with X-Rays (Mouse Skin), J. C. Fardon, W. A. Sullivan, G. W. Brotzge, Sister M. K. Loeffler & Sister M. B. Andrus. *Studies Institutum Divi Thomae* **2,** *203, 1939.* (See item under Section Q.)

Hormone Cream, Anon. *Soap, Perf. & Cosm.,* **12,** *787, 1939.* (See item under Section D.)

Hormones in Face Creams, Ed. *Soap, Perfumery & Cosmetics,* **12,** *663, 1939.* (See item under Section G.)

U Dermatitis

Chemistry of Human Skin, III, V. A. Wilkerson & V. J. Tulane. *J. Biol. Chem.,* **129,** *477, 1939.* Human skin contains 2.38 per cent cystine, 2.47 per cent methionine and 1.09 per cent of total sulphur. Explanations for the cystine and methionine content are advanced. The skin used was stratum corneum from human cases of exfoliative dermatitis. (Through C.A.)

Dermatoses Due to Vitamin A Deficiency, B. Youmans & M. B. Cortlette. *Am. J. Med. Sci.,* **195,** *644, 1938.* Case reports of six patients with histological study of skin suffering from dermatoses due to vitamin A deficiency. (Through *C.A.*)

Epidermophytosis, A. K. Hardee, Jr., & H. M. Buralge. *Am. Prof. Pharm.,* **5,** *251, 1939.* A review of the methods of treating this condition with 22 references. (Through *C.A.*)

Sensitivity of Human Skin to Ultraviolet, J. J. Zoon. *Strahlentherapie,* **61,** *640, 1938.* Patients with *xeroderma pigmentosum* were used in the sensitivity tests. Increased sensitivity is believed to be due to increased concentration of coproporphyrin in blood and urine. This increase is prevalent during the months of March and April. During November and December there is no such increase and as a result no increased sensitivity to ultraviolet light.

Skin Sensitivity to Turpentine and Method of Reduction, etc., L. Goldman. *J. Investigative Dermatol.,* **2,** *281, 1939.* Induction of artificial fever in the skin of guinea pigs prevented the development of hypersensitivity to turpentine. (Through *C.A.*)

V Manicure Preparations

Care of the Hands, H. Janistyn. *Reichstoffind.,* **14,** *137, 1939.* Thirty-eight formulas for cosmetic preparations used in caring for the hands. Products considered are jellies, creams, nail lacquer, finger wash, cuticle remover, cuticle oil, stain removers and others.

Cuticle Remover, Anon. *Drug & Cosmetic Industry,* **45,** *627, 1939.* Five per cent of potassium hydroxide in water, to which 1 per cent oleic acid is added. Potassium oleate forms Mineral oil also may be added before mixing.

Esters of Glycols. *U. S. Pat. 2,158,107.* Glycol or polyglycol is treated with hydroxy monocarboxylic acid such as lactic, glyceric, salicylic, etc., to form solvents or plasticizers for lacquers or plastic masses.

Manicure Preparations, R. G. Harry, *Mfg. Perfumer,* **4,** *108, 114, 134, 1939.* After a discussion of the physiology of the nail, the following product formulas are suggested: cuticle remover, nail white, abrasive polish, lacquer polish and remover.

Manicure Preparations, H. Janistyn, *Soap, Perf. & Cosm.,* **12,** *756, 1939.* A comprehensive discussion of hand creams, jellies and lotions, nail enamel, and other nail preparations. Twenty-nine formulas. An *oily nail enamel remover* consists of 2.5 parts butyl stearate, 16.5 parts carbitol and 81 parts acetone. An ink and tobacco *stain remover* consists of citric acid 5 parts, hydrogen superoxide 15 parts, alcohol 5 parts, methyl p-hydroxybenzoate 0.2 parts, and water 74.8 parts. A *cuticle remover* contains potassium hydroxide 5 per cent, trisodium phosphate 5 per cent, sulphonated lorol 2 per cent, glycerine 5 per cent and water 83 per cent. *Bath salt for soft nails* contains sulphonated lorol 5 per cent, citric acid 10 per cent, boric acid 5 per cent and aluminum sulphate 80 per cent.

Nail Polish Solvent, *U. S. Patent 2,173,755.* Ethylene dichloride together with diethylene glycol are used as solvents for nail polish. Use of cellulose ethers and cellulose acetobutyrate is described.

Plasticizers for Nitrocellulose XI. A. Kraus, *Farbe u. Lack., 1938, 617, cf. C.A.,* **33,** *5683, 1939.* The effect of dibutyl phthallate as a plasticizer for nitrocellulose is studied.

Plasticizers for Nitrocellulose Lacquers, XII, A. Kraus, *Farbe u. Lack., 1939, 53-4.* Pigmented nitrocellulose lacquers containing 10 synthetic resins and 10 plasticizers are tested. Plasticizers affect the tensile strength and elasticity in varying degrees.

Rapid Method of Testing Lacquers, Enamels, etc., F. J. Peters, *Farbe u. Lack., 1939.* (See item under Section A.)

Scheme of Gelation Process of Cellulose Nitrate Solutions V. A. V. Pamfilov & M. G. Shikher, *Colloid J.,* **4,** *587, 1939.* Gelation in presence of copper is due to invisible coagulation and not to chemical re-

action. Four reasons are given to support this view. (Through *C.A.*)

Viscosity of Cellulose Nitrate Solutions, Changes of. IV. A. V. Pamfilov, A. G. Shikher and M. G. Shikhere, *Colloid J.*, **4**, *569, 1939.* Solutions of cellulose nitrate in acetone gel in the presence of small concentrations of copper. Acids in solvents produce a similar condition. The tests are borne out in tests on actual lacquers. (Through *C.A.*)

W Wetting and Foaming Agents

Aminoaryl Sulfones, *Swiss Patent 200,667.* (See item under Section N.)

Chemical Heating Pad, *U. S. Pat. 2,168,219.* Metal foil such as of aluminum, and a chemical mixture of mercuric chloride, sodium nitrate, sodium chloride, which when moistened with water will react together and produce exothermic heat for permanent waving human hair.

Detergent Types, A. E. Hulme, *Textile Recorder*, **57**, *40, 1939.* Anion and cation soaps are the two types of detergents commonly encountered. Examples of each type are mentioned. (Through *Soap.*)

Dispersing Agent, *German Patent No. 677,100.* Dispersing agents derived from tetrahydrofurfuryl alcohol or its esters used alone or in conjunction with other solvents, soaps or sulphonated oils.

Ether Dispersing Agents, *U. S. Pat. 2,164,431.* An ether of di or trihydroxy ethylene glycol, in which one hydroxyl group is etherified with a radical of at least 8 carbons such as dodecyl alcohol.

Evaluating Wetting Agents, J. W. Creely & G. LeCompte, *Am. Dyestuff Reporter*, **28**, *P-419, 1939.* The Draves test is not an accurate method of evaluating wetting agents as the cloth used greatly affects the determination. Each wetting agent presents special problems which must be considered before any evaluation may be achieved. (Through *Soap.*)

Evaluating Wetting Agents, Carl Z. Draves, *Am. Dyestuff Reporter*, **28**, *P-421, 1939.* Any representation of sinking time determined by the Draves Method must be accompanied by the concentration of wetting agent used, as the dilution affects the results. The Draves Method is more accurate in arriving at a 25-second sinking concentration than the Canvas Disc Method. (Through *Soap.*)

Foam Baths, J. M. Vallance, *Mfg. Perfumer*, **4**, *284, 1939.* Foam baths were made possible by the development of modern foaming agents. Products sold as powders usually contain 40-50 per cent of active material. General considerations in formulating powder and liquid products are given.

Sulfonates, III, *J. Am. Chem. Soc.*, **61**, *539, 544 & 549, 1939.* A description of solutilities, desisties, viscosities, electrical conductance and other physicochemical properties of various sodium alkyl sulfonates.

Wetting Agent. *U. S. Pat. 2,173,058.* An ester of triethanolamine in which one of the hydroxyl groups of the amine is substituted by a higher fatty acid radical.

X Permanent Waving Preparations

Chemical Heating, *Brit. Pat. 502,059.* A mixture of an acid or acidic salt, a metal oxide, the thermophoric mixture of which is described in B.P. 461, 740, is replaced by an ionizable salt of heaty metal. A suitable mixture consists of aluminum 1.5 parts, potassium chlorate 2 parts, copper sulphate 1 part and Fuller's earth 4 parts.

Chemicals Used in Permanent Waving, H. Schwarz, *Seifens. Ztg.*, **66**, *635, 1939.* Hair damaged by bleaching may be waved by using acid waving solutions. Alkalies ordinarily are used and produce satisfactory waves. Wax preparations are poor curling products.

Chemical Heating Pad for Waving Hair, *U. S. Pat. 2,150,598.* An aluminum container arranged to hold chemicals for exothermic reaction. The chemicals are held by an overlapping sheet of absorbent paper or cloth.

Hair Waving Pad, *U. S. Pat. 2,152,714.* A porous pad shaped to surround the hair is impregnated with a curling solution neutralizer such as sodium dichromate or ammonium chloride.

Heat Producing Chemicals, *U. S. Pat. 2,157,169.* Description of a bag with a compartment containing iron filings associated with another bag containing reactive granular material containing potassium or ammonium chloride.

Heat Producing Chemicals. U. S. *Pat. 2,173,683.* A package contains aluminum metal or other more electropositive metal than aluminum and a mercurous salt. When moistened with a water solution of soluble ammonium salt, exothermic heat is produced.

Heat Producing Chemicals. U. S. *Pat. 2,173,297.* A mixture of alkali metal chlorate, powdered metal and powdered metal oxide which when moistened with a solution containing ammonium chlorides produces exothermic heat.

Lanolin Permanent Waving Solution, anon., *Drug & Cosm. Ind.*, **45**, *115, 1939.* Lanolin is mixed with equal weight of oleic acid and added to the permanent wave solution. Alkali present forms soap with oleic acid emulsifying lanolin. Pass through a homogenizer. Use 1-2% lanolin.

Permanent Waving Hair, *U. S. Pat. 2,155,178.* The hair is treated with a compound capable of removing sulfur, such as a 5 per cent water solution of ammonium sulfite, at a temperature lower than 50°, for from 3 to 6 hours. This gives the hair permanent set, when it is treated with an oxidizing agent such as peroxide.

Wave Set Concentrate, anon. *Drug & Cosm. Ind.*, **45**, *498, 1939.* Mix 1 ounce of powdered dry gum Karaya with 4 ounces isopropyl alcohol. This mixture is sold in 4-ounce bottles which is diluted with water to a gallon when used.

Soap cannot "air condition" the body says F. T. C.

The Federal Trade Commission has issued a complaint against Air Conditioning Textiles, Inc., New York, N. Y., sellers and distributors of toilet preparations, charging misrepresentation. The products include a toilet soap designated variously as "Air Conditioning the Human Body" soap and as "Air Conditioning" soap.

In advertisements and by means of circulars and other printed matter, the corporation allegedly represents that its products "definitely reduce body temperature," "reduce humidity by evaporation," and "eliminate perspiration objections."

Use of the term "Air Conditioning," the complaint continues, as descriptive of company's soap product, has the tendency to mislead purchasers into the mistaken belief that to some extent the principle of air conditioning has in some manner been incorporated into the soap and that it possesses properties contributing to human comfort not possessed by ordinary soaps. The company's soap possesses perfume and menthol in less than 3 per cent, but, the complaint alleges, it has no properties different from ordinary soap.

Kathryn Kenny introduces Champagne lipsticks

Champagne now is used to flavor a new lipstick introduced by Kathryn Kenny, Boston. Presented in a deep, rich red with wine undertones, the lipstick is said to have both the aroma and flavor of a vintage champagne.

In addition to the champagne lipstick, others with wine and cordial flavors such as apricot or peach have been launched on the market.

Executives and representatives of Fritzsche Brothers, Inc., gathered at dinner, December 14.

Abonita Laboratories is New name for company

Abonita Laboratories has been organized at 28 S. Clinton St., Chicago, Ill., to succeed the Abonita Co.

Fritzsche Brothers holds Annual sales conference

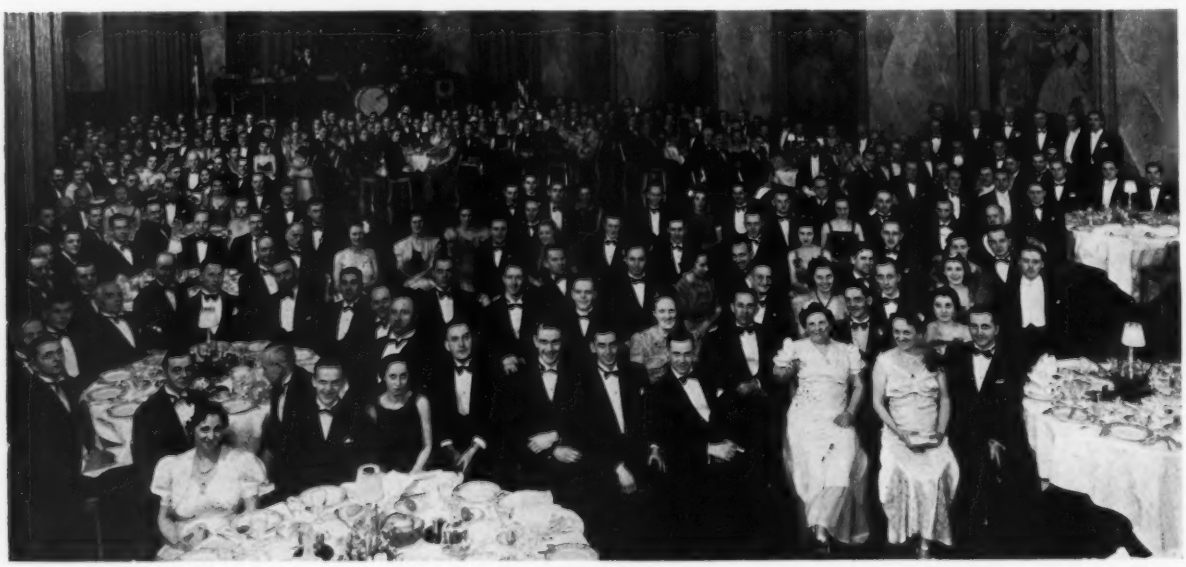
The annual sales conference of Fritzsche Brothers Inc., New York, N. Y., was held in the Hotel New Yorker, December 14, 15 and 16. Representatives from all parts of the country attended the meeting where plans for the coming year were outlined and mutual problems were discussed.

The culminating event of the week was the annual dinner dance of the entire organization in the grand ball room of the New Yorker on the evening of December 16. About 250 executives and members of the organization attended. The evening's program began with the singing of the national anthem after which F. H. Leonhardt, president, speaking for himself and the directors, bade his growing Fritzsche family a cordial welcome. His only injunction was that they have a happy and enjoyable evening. Dancing was enjoyed until an early morning hour.

British perfumers elect Gardner—discuss trade pact

T. Lyddon Gardner, of Yardley & Co., Ltd., who was deputy chairman of the Perfumery and Toilet Preparations Manufacturers' Section of the London Chamber of Commerce for the past year, was elected chairman at the recent annual meeting while the previous chairman, S. C. Johnson, of Morny, Ltd., becomes deputy chairman.

At the meeting Mr. Johnson gave a review of the work of the section particularly so far as this related to overcoming difficulties arising out of war which had shown, he said, "the value to our industry of a representative body such as the Section." He referred to the decision of the Section to wait



A glimpse of the merrymakers from Fritzsche Brothers enjoying their annual dinner dance which climaxed the three-day sales conference.

until the position became clearer before making any change in prices.

Naturally Mr. Johnson also referred to the new trade agreement between the United States and Great Britain, under which the United Kingdom reduced the duties on American hard soaps, shaving soaps, and certain other toilet preparations, while the British industry obtained much desired concessions from the United States, namely reduction in the duties on bath salts and the more expensive toilet soaps.

Maryland "loss leader" Law declared invalid

In declaring unconstitutional the "loss leader" law of Maryland recently, Circuit Judge S. K. Dennis said the law was "vague, conjectural and arbitrary to the due process clause of the Federal Constitution." The decision was handed down by Judge Dennis in a suit brought by the Daniel Loughran Company and Middleman & Weiss, Inc., in which the plaintiffs asked for an injunction to restrain the defendants from selling cigarettes below the wholesale cost.

Merck & Co., shares $75,000 with employees

Merck & Co. Inc., Rahway, N. J., announced recently that the company had made a payment of $75,000 on a profit-sharing basis with employees in accordance with the supplemental retirement income plan adopted in 1937. The announcement was made by George W. Merck, president.

Under this plan there is appropriated each year in which dividends in excess of one dollar per share are paid on the common stock of the company a sum per share equal to one-third of the amount by which such dividends exceed one dollar per share.

In addition to this profit-sharing plan, the company will continue its policy with respect to the existing sick benefit plan and holiday and vacation plan. The group life insurance now in effect will also be continued.

Merck & Co. Inc., employs 1750.

Milk of Magnesia creams Cannot correct acid skins

Charles H. Phillips Chemical Co., New York, N. Y., has been served by the Federal Trade Commission with a complaint alleging misleading representations in the sale of "Phillips' Milk of Magnesia Cleansing Cream" and "Phillips' Milk of Magnesia Texture Cream."

The corporation allegedly advertised that "if your skin seems 'acid,' if it has lost its fresh tone, smooth firm texture * * * then try the beauty-giving action of these milk of magnesia creams on your skin!" . . . "Help overcome 'acid' skin. You know how milk of magnesia taken internally relieves excess acidity of the stomach. In just the same way these new type milk of magnesia creams act externally on the excess fatty acid accumulations on the skin, and help to overcome unsightly faults and aid in beautifying."

It is alleged that the company's use of the phrase "Milk of Magnesia" in the name of its products has a tendency to mislead buyers because milk of magnesia has no therapeutic value in treating the conditions for which the company recommends it such as "acid skin," skin blemishes, enlarged pores or excess fatty acid accumulations, and will neither penetrate nor cleanse the pores nor improve the texture of the skin.

Skin blemishes are not caused by "acid skin"; in fact, there is no disease or abnormal pathological condition known as "acid skin," according to the complaint. The quantity of fatty acid on the normal skin is very small, the complaint continues, and neither the use of one nor of both the respondent's preparations will neutralize it in the same way that milk of magnesia neutralizes excess acid in the stomach, or so as to accomplish the results represented.

Western representative of Kelton to carry stocks

Announcement is made by The Kelton Cosmetic Co., New York, N. Y., that for the convenience of its Western customers stocks of its line of cosmetics will be carried by its West Coast representative, The Herman Schlobohm Co., 819 Santee St., Los Angeles, Cal.

Ungerer & Co. organization Holds Christmas party

The organization of Ungerer & Co., New York, N. Y., celebrated the holiday season with a Christmas party at the Little Venice where a dinner was enjoyed. The vocal ability of numerous members of the staff was demonstrated in the singing of Christmas carols.

British war bureau issues Warning on mascara use

The British Ministry of Security has called the "attention of women . . . to the fact that the temperature conditions obtained inside the face-piece of the gas mask cause the non-waterproof eyeblack to run, leading to smarting of the eyes, profuse tears and spasms of the eyelids. This produces an urgent desire to remove the mask, with dangerous results if gas is present."

This is certainly true of eyeblack based on soap but the British Ministry of Security appears to be unaware of the fact that there are brands of eyeblack other than the water-proof type made with mineral waxes, which are not based on soap and which do not cause the eyes to smart.

Ancient beauty secrets to Be shown February 8-March 4

An exhibition of books from the Wilbour Library of Egyptology together with some objects from Egyptian and classical collections will be shown at the Brooklyn Museum from February 8 to March 4.

Claims for skin peel and Special offers under fire

Alleging dissemination of misleading representations in the sale of cosmetics, the Federal Trade Commission has issued a complaint against Witol, Inc., Witol Beauty Laboratories, Inc., and their officers, William Witol, Ann Felix and Hattie Blankfeld, 1700 Broadway, New York, N. Y.

According to the complaint, the respondents represented that "Take-Off" is an effective preparation for the treatment of pimples, blackheads, whiteheads, freckles, and superficial blemishes of the skin, and that it removes the outer layer of the skin to give a new, fresh surface skin. The respondents, it is alleged, further represented that "Witol's New Liquid Skin Peel" is an effective preparation for the removal of the outer skin.

The complaint further charges the respondents with falsely advertising that certain of their offers were special or limited, when such offers were held forth continuously to the public and were not limited.

Through the use of the word "Laboratory" in the corporation's name, the complaint continues, it is represented and implied that the preparations emanate from an establishment appropriately equipped with scientific apparatus and manned by trained technicians, for the scientific and experimental study of these preparations and their use in the treatment of skin disorders, when actually no such laboratory is owned, operated or directly or indirectly controlled.

William Witol, according to the complaint, conducts the business, assisted by the other two officers, through the two respondent corporations, but formerly operated through the corporations Dermolav Laboratories, Inc. and Marvo Beauty Laboratories, Inc.

Consent injunctions against 18 fair trade violators

Consent injunctions against retail druggists who were violating the fair trade contracts have been secured by Lewis G. Bernstein, attorney, as follows: for Coty Inc., 7; for Bourjois Inc., 1; for F. W. Fitch Co., 5; and for the Wildroot Co., Inc., 5.

Richard O. Morgan joins Whittaker, Clark & Daniels

The many friends of Richard O. Morgan, for 15 years with the Charles B. Chrystal Co., will be interested to learn that he now is associated with the well-known firm of Whittaker, Clark & Daniels, Inc., New York, N. Y.

Fragrance dispelled by film In motion picture houses

A fragrant film, producing 4,000 different smells which are distributed through what are called "smell aerials," was shown for the first time in Berne, Switzerland, to newspaper representatives, December 27, according to reports received here. The story said that if, for instance, a bunch of roses is shown on the screen the perfume of fresh roses begins to fill the theater. The odor changes automatically according to what is being shown on the screen. The device was invented by two Swiss engineers. Further details are lacking.

College students attend Clinic on care of hair

Students at the College of New Rochelle, New Rochelle, N. Y., attended in December a clinic on hair care, which was held by Miss Elaine Horton, personal representative of Ogilvie Sisters. This session was a part of the Personality Clinic, latest project of the Placement Bureau of the college's Personnel Department, which has been created to help seniors prepare for their after-college life.

Miss Horton was given a class room for the day and the students came during spare periods for personal interviews about individual hair problems. They were shown the Ogilvie Sisters method of caring for the hair at home with the correct preparations and brushes. Faculty members also obtained consultations on hair problems.

Foragers make merry At annual banquet

The annual banquet of the Foragers was held at the Midston House, New York, N. Y., on the evening of January 6 and as usual proved to be a highly enjoyable and well attended affair. The officers for 1940-41 are: H. T. Georgi, president; T. M. Hanlon, vice-president; A. J. Connolly, secretary-treasurer. The board is comprised of: Sam Jones, F. C. Hammond, L. H. Schultes, G F. Zinnel, C. R. Keeley and O. H. Betz.

The Cosmetic Law

(Continued from page 41)

powder production. What can we do with the face powder we have on hand?

A. See answer to question 2. If your state law, provided you have one, does not prohibit its sale, you can sell it in your own state. You are running a chance if you try to sell it outside of the state now. This may seem like a hardship to you; but consider the plight of the importers of face powder who cannot bring it into this country past the custom house because the powder is not made from certified colors.

4. Q. *We have a lot of labels on hand which do not give net contents. Half were made before February 1, 1939. What can we do with them?*

A. A supplementary label giving net contents could be used. Or, if this is not feasible, regulations issued December 5, 1939, which must be fully complied with, may permit you to use them until July 1, 1940. See *The American Perfumer*, December 1939 issue, page 66, for these.

Obituaries

James P. Newton

James P. Newton, president of Haskins Bros. & Co., soap manufacturers, died suddenly at his home in Sioux City, Iowa, December 15 from a heart attack.

Born in Prairie du Chien, Wis., Sept. 20, 1867, Mr. Newton grew up there and attended Beloit College. In 1889 he moved to Sioux City, where he became associated with Haskins Bros. & Co. under his brother William, then secretary of the company. In 1908 the Newton brothers took over the company completely, with William as president, Jim succeeding him as secretary. Jim became president in 1929 when his elder brother died.

Mr. Newton loved to travel, and before his health failed had visited most of the countries on the globe. He was also deeply interested in flowers and horticulture, maintaining his own experimental, landscaped "Middlefield Gardens" on his summer estate.

He is survived by his widow, Nellie G., and three sons, James, Jr., Charles and Sam. John A Newton, a brother, also survives him.

David Costelo

David Costelo, well known pharmacist in New York, N. Y., died December 5 at the age of 83. Born in Indianapolis, Ind., he attended the Philadelphia College of Pharmacy and was graduated in 1879. He conducted his own pharmacy in New York for many years, prior to that having served Caswell, Massey & Co. between 1880 and 1908.

He was elected a trustee of the New York College of Pharmacy in 1911 and was chosen vice-president in 1933, serving actively until 1938 when he refused nomination because of his advancing age. At that time, he was elected as honorary vice-president for life.

Interment was in Indianapolis.

Trade Jottings

Two new lipstick shades, Natural Rose and Pink Heather, are launched by Yardley & Co., Ltd. Cream or dry rouge are available in colors to match these shades.

Elmo's newest eau de cologne, Honeysuckle, appears in an attractive triangular bottle with an interesting pastel colored carton.

Barbara Gould, Inc., has issued color harmony charts for winter costumes. The cosmetic colors include desert rose, currant rose, pagan red, cerise, pink camellia and moderne.

Two new shades in lipsticks were created in the London laboratories of Rose Laird just before war broke out and were brought to this country via American Clipper. One is Mink, designed to be worn with browns, greens and wines. The other is Red Coal, created to highlight black.

Nine cosmetic preparations are contained in the Travelite case recently introduced by Primrose House. It is made of polished alligator grain and lined in beige moire. A removable tray keeps the cosmetics separate.

Clarion is the new shade of make-up presented by Doraldina Cosmetics, Inc. It is a vivid red and is available in lipstick, compact and cream rouge.

House of Westmore

(*continued from p.* 31) with the opening of eight new territories in key cities to allow a more thorough national coverage, especially of drug and department stores. The staff at the Hollywood beauty salon totals 35. And then there are the employees in the Hollywood laboratories, where part of the products are manufactured, the balance being produced at Suffern, N. Y.

And what of the future of the House of Westmore? With an enlarged sales program through additional territories to be opened this year, Westmore expects to increase its national distribution through drug and department stores. Retailers in the drug field now buy mostly through jobbers. Increased national magazine advertising is expected to focus the attention of larger numbers of women on these color filtering cosmetics. The firm may introduce items in combination for drug and department store trade. Business outside the United States has not been touched to date, the firm filling orders only on demand for such remote places as Australia and the Philippines.

Encouraging to the firm is the number of "repeat" orders received during the past year. High in acceptance, as noted by sales, are the foundation cream, powder and lipstick.

WESTMORES ANALYZE CURRENT PROBLEMS

And in Hollywood, the Westmore brothers continue their studies of the problems of make-up; each month they meet to analyze and discuss pictures, especially those in Technicolor, where varied lighting generates varied problems in the use of cosmetics. Recent developments in the movie industry—primarily traceable to colored movies—restrict the use of cosmetics on the screen. During the past two years, studio make-up has been quite thin, less than that generally used for street wear, in an effort to permit natural skin tones to show.

Out of the changes and developments in studio make-up come aids to the Westmores' production of cosmetics for the average woman. And from the average woman's desire for the illusion of beauty as portrayed by the women of the screen comes the mounting sales of the House of Westmore.

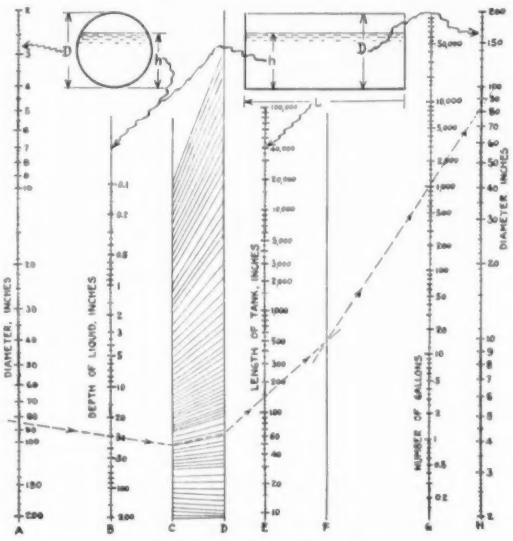
Horizontal Tank Chart

HERE is a chart that gives the gallons of liquid in any horizontal tank without the use of tables, formulas, figures, or computations of any kind.

Simply start at the left and zigzag a ruler or thread across the chart three times as demonstrated by the dotted line and the number of gallons is immediately found in column G. For example: How many gallons in a tank 84 inches in diameter, the depth of liquid being 30 inches, and the length of the tank being 142 inches?

Run a straight line through the 84, column A, and the 30 in column B and locate the intersection with column C. By means of the eye follow the radiating "guide lines" to column D, locating a second point of intersection. From this latter intersection run through the 142, column E, and locate the point of intersection in column F. Then from this point run over to the 84, column H, and the intersection in column G will be found to be close to 1,050 gallons, which is the answer.

One of the great advantages of this chart is that it takes care of any depth of liquid from 1/10 of an inch to the full capacity of the tank. All guess-



Quick and Useful Tank Chart

work is eliminated. To make the chart absolutely clear the writer has included sketches showing the diameter of the tank D, the depth of liquid H, and the length of tank L with wavy arrows leading from them to the proper columns. By following them no mistake can be made.

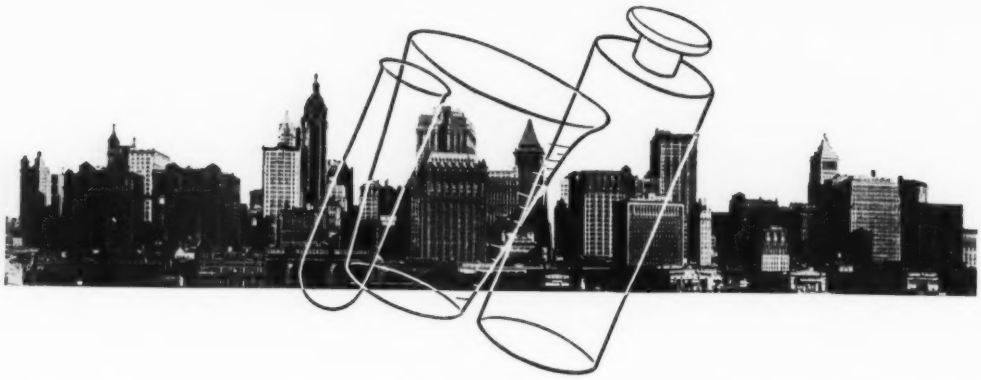
The range of the chart is amply wide. It will take care of any diameter from 2 inches to 200 inches and of any length of tank from 10 inches to 100,000 inches.

This chart will give an answer much more quickly than tables or formulae. It is surprisingly accurate. It is more complete than tables because it takes care of every dimension between 2 inches to 200 inches whereas tables generally skip many diameters and lengths giving only 24 inch, 28 inch, 32 inch, 34 inch, and so forth.

To avoid confusion all dimensions are given in inches.

Since column E takes care of lengths of tanks up to 100,000 inches it is plain that not only will this chart compute tanks but it will include long pipes whenever it is desired to compute either the full capacity of such pipes or their partial capacity. 100,000 inches is equal to 8,333 1/3 feet.

Inversely the chart may be used very conveniently for determining the length of tank necessary to hold a given number of gallons where the diameter of tank and depth of liquid are known or fixed quantities as is often the case. The method of applying the chart to problems of this character is obvious.
—*W. F. Schaphorst, M. E.*



What's Happening Marketwise

WHILE the market for essential oils and aromatic chemicals turned irregular toward the close of December due to a seasonal slackening in demand and more liberal arrivals, prices generally are considerably above those in force a few months ago.

The market as a whole presented a different picture from the one a year ago in that there seemed to be a complete absence of the customary year-end pressure to sell odds and ends. Another feature compared with recent years was the appearance of orders and inquiries for export. Manufacturers of toilet preparations, perfumers and other consumers having had former sources of supply closed to them, have been looking to this market and other parts of the world for material.

Fear of Shortages Grows

At no time since the World War has the outlook been so uncertain. There is a growing fear that shipping difficulties due to an intensification of the war at sea may prevent the safe arrival of merchandise. Shipping conditions necessarily must remain disturbed. Then there is the fear of a gradual curtailment in the production of several important items due to the demand for man power and the increased attention being centered on war materials and essentials for living.

Future supplies of chemicals of a special nature, specialties and higher aldehydes are threatened by the upset conditions abroad.

Wholesale Activity Slows

With the most consuming manufacturers centering their attention on the marketing of their finished products for the holiday trade, activity in the wholesale market tapered off over the past month. In view of the aggressive sales campaigns by perfumers and toilet goods manufacturers over the holiday period it is believed that manufacturers succeeded in reducing a good portion of their stocks.

Eucalyptol, amyl salicylate, menthol, thymol and linalyl acetate all displayed considerable strength. Despite a quieter demand for eucalyptol, there is nothing in the market that would indicate any immediate reaction. Thymol is strong. The keen desire on the part of regular consumers to increase their takings during October and November left the market strong statistically.

Menthol Market Active

Japanese menthol turned stronger on sharply higher cables. Importers with low cost material quickly disappeared from the market realizing that over $4 a pound would have to be paid for replacements. The advance came at a peculiar time, however, since several local houses started to offer Chinese Menthol. Such offerings met with considerable favor among consumers. A fairly substantial volume of business was put through over the past month.

Trade in musks was along conservative lines with the bulk of the business being filled out of domestic production. Replacement of foreign material was subject to delay and at fairly high cost.

Japan has sold practically all of its possible production of safrol and artificial sassafras for several months to come, and exporters have been slow in making deliveries against outstanding contracts. Because of a slackening in demand however some holders seemed a little anxious to move the small quantities on hand. Some lots of Chinese oil of camphor sassafrassy arrived here over the past mouth, but these goods found ready buyers.

Oil Lemongrass Higher

Oil lemongrass responded to a sharply higher level. Considerable trading developed here among dealers when news of a shorter crop was received from India. Futures were offered at somewhat lower prices toward the close of the period, but future arrivals seem highly uncertain.

The outlook concerning eucalyptus oil, petigrain, lavender distilled lime oil and thyme is regarded as very uncertain. Thyme oil is difficult to obtain in large quantities. Toward the close lavender oil was quoted higher for shipment with reports current about the trade to the effect that no more new crop oil was available for shipment from the source. The crop of Mexican lime oil has been reported short, and shippers of West Indian oil have been holding for higher prices.

Supplies of Gum Arrive

Fresh arrivals resulted in more favorable prices on gum Arabic, henna leaves, gum myrrh and Sumatra benzoin. Export demand for gum myrrh proved disappointing and with a seasonal lull in domestic buying, the market suffered a severe setback. Late advices from the Sudan indicated that stocks of gum Arabic were not arriving from the interior very freely. As a result some importers were inclined to take on a slightly firmer view of the outlook

Quotations on Japanese camphor were virtually nominal. There was little offered for shipment. Domestic makers of synthetic material advanced prices but there was little available since producers have been considerably behind on deliveries.

PRICES IN THE NEW YORK MARKET

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Almond Bit., per lb.	$2.00@	$2.50
S. P. A.	2.10@	2.60
Sweet True	1.05@	1.25
Apricot Kernel	.35@	.50
Amber rectified	.50@	.65
Amyris balsamifera	3.00@	3.25
Angelica root	45.00@	52.00
Anise, U. S. P.	.80@	.90
Aspic (spike) Span.	1.25@	1.70
French	1.55@	
Bay	1.25@	1.35
Bergamot	4.00@	4.85
Birch, sweet	1.55@	2.65
Birchtar, crude	.27@	.35
Birchtar, rectified	.85@	.97
Bois de Rose	1.75@	2.10
Cade, U. S. P.	.60@	.75
Cajeput	.71@	.95
Calamus	7.50@	8.25
Camphor "white"	.50@	.55
Cananga, Java native	1.75@	1.90
rectified	2.30@	2.50
Caraway	3.25@	3.80
Cardamon, Ceylon	17.00@	20.00
Cassia rectified, U. S. P.	1.30@	1.50
Cedar leaf	.70@	1.00
Cedar wood	.20@	.40
Celery	7.75@	10.00
Chamomile (oz.)	5.00@	7.00
Cinnamon	8.00@	16.25
Citronella, Ceylon	.48@	.55
Java	.48@	.52
Cloves, Zanibar	1.40@	1.65
Copaiba	.60@	.75
Coriander	16.00@	22.00
Croton	1.75@	2.50
Cubebs	3.75@	3.90
Cumin	8.50@	10.00
Dillseed	3.75@	4.00
Erigeron	2.40@	3.00
Eucalyptus	.65@	.70
Fennel, Sweet	2.25@	3.00
Geranium, Rose, Algerian	3.00@	3.50
Bourbon	2.75@	3.50
Turkish	2.75@	2.85
Ginger	5.00@	5.75
Guaiac (Wood)	2.75@	3.15
Hemlock	.90@	1.10
Juniper Berries	2.75@	3.50
Juniper Wood	.50@	.60
Laurel	4.75@	5.00
Lavender, French	2.75@	4.15
Lavandin	2.00@	2.80
Lemon, Italian	3.15@	3.75
Calif.	3.00@	
Lemongrass	.85@	1.25
Limes, distilled	4.20@	4.75
express	7.25@	8.00
Linaloe	1.50@	2.00
Lovage	55.00@	70.00
Marjoram	6.00@	8.00
Neroli, Bigarde, P.	115.00@	130.00
Petale, extra	140.00@	155.00
Olibanum	5.00@	5.25
Opopanax	10.00@	12.00
Orange, bitter	2.80@	2.85
sweet, W. Indian	2.80@	2.85
Italian	4.00@	4.80
Spanish	4.00@	4.75
Calif. exp.	1.50@	
Orris root, con. (oz.)	5.00@	5.50
Orris root, abs. (oz.)	35.00@	56.00
Orris Liquid	18.00@	25.00
Pennyroyal Amer.	2.25@	2.60
French	2.80@	3.00
Peppermint, natural	2.85@	3.10
redistilled	3.05@	3.50
Petitgrain	1.25@	2.50
Pimento	$3.00@	$4.75
Pinus Sylvestris	2.30@	2.75
Pumillonis	2.90@	3.25
Rose, Bulgaria (oz.)	6.00@	12.00
Rosemary, French	.75@	.85
Spanish	.70@	.72
Sage	2.75@	3.00
Sage, Clary	28.00@	30.00
Sandalwood, East India	5.50@	6.00
Australia	6.00	Nom'l
Sassafras, natural	1.20@	1.35
artificial	.75@	
Snake root	9.50@	11.00
Spearmint	2.10@	2.50
Thyme, red	1.35@	1.90
white	1.50@	2.25
Valerian	12.50@	15.00
Vetivert, Bourbon	5.25@	6.00
Java	3.75@	8.00
Wintergreen	3.35@	8.00
Wormseed	3.50@	3.80
Ylang Ylang, Manila	22.00@	24.00
Bourbon	3.00@	5.75

TERPENELESS OILS

Bay	2.65@	3.00
Bergamot	11.00@	14.00
Clove	3.00@	4.75
Coriander	45.00@	50.00
Geranium	8.00@	12.50
Grapefruit	60.00@	65.00
sesquiterpeneless	85.00@	
Lavender	8.00@	16.00
Lemon	15.00@	21.00
Lime, ex.	67.00@	70.00
Orange, sweet	120.00@	
bitter	98.00@	115.00
Petitgrain	2.60@	3.75
Rosemary	5.00@	6.25
Sage, Clary	90.00@	
Vetivert, Java	35.00@	
Ylang Ylang	28.00@	35.00

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	2.00@	
Acetophenone	1.35@	2.00
Alcohol C 8	10.00@	14.00
C 9	22.00@	35.00
C 10	20.00@	
C 11	17.50@	19.00
C 12	8.00@	18.00
Aldehyde C 8	30.00@	35.00
C 9	20.00@	40.00
C 10	23.00@	35.00
C 11	18.00@	27.00
C 12	23.00@	28.00
C 14 (so-called)	13.00@	
C 16 (so-called)	8.00@	13.00
Amyl Acetate	.75@	1.00
Amyl Butyrate	1.05@	1.25
Amyl Cinnamate	4.50@	5.80
Amyl Cinnamate Aldehyde	2.00@	3.50
Amyl Formate	1.60@	1.90
Amyl Phenyl Acetate	3.00@	5.55
Amyl Salicylate	.59@	.75
Amyl Valerate	2.00@	2.40
Anethol	1.10@	1.45
Anisic Aldehyde	2.80@	3.20
Benzophenone	.90@	1.30
Benzyl Acetate	1.50@	
Benzyl Alcohol	.70@	1.00
Benzyl Benzoate	.85@	1.75
Benzyl Butyrate	4.00@	6.00
Benzyl Cinnamate	5.50@	7.00
Benzyl Formate	3.50@	3.60
Benzyl Iso-eugenol	10.25@	12.30
Benzylidenacetone	2.25@	3.50
Borneol	1.75@	2.00
Bornyl Acetate	1.50@	4.50
Bromstyrol	$3.75@	$4.25
Butyl Acetate	.08½@	.14½
Butyl Propionate	2.00@	
Butyricaldehyde	12.00@	
Cinnamic Acid	3.75@	4.50
Cinnamic Alcohol	3.00@	3.85
Cinnamic Aldehyde	1.00@	1.25
Cinnamyl Acetate	7.50@	11.00
Cinnamyl Butyrate	12.00@	14.00
Cinnamyl Formate	13.00@	
Citral C. P.	1.75@	2.80
Citronellal	.85@	1.65
Citronellol	1.60@	2.00
Citronellyl Acetate	3.50@	5.00
Coumarin	2.75@	3.00
Cuminic Aldehyde	27.00@	48.00
Diethylphthalate	.24@	.33
Dimethyl Anthranilate	5.75@	8.00
Ethyl Acetate	.30@	.50
Ethyl Anthranilate	5.75@	7.50
Ethyl Benzoate	1.20@	1.75
Ethyl Butyrate	1.00@	1.25
Ethyl Cinnamate	3.25@	3.80
Ethyl Formate	1.00@	1.25
Ethyl Propionate	1.20@	2.35
Ethyl Salicylate	1.15@	2.50
Ethyl Vanillin	6.00@	6.50
Eucalyptol	.85@	.90
Eugenol	2.25@	2.75
Geraniol, dom.	1.15@	3.50
Geranyl Acetate	1.70@	2.50
Geranyl Butyrate	6.00@	8.00
Geranyl Formate	3.50@	6.00
Heliotropin, dom.	3.15@	3.50
Hydrotopic Aldehyde	25.00@	27.50
Hydroxycitronellal	2.25@	6.00
Indol, C. P. (oz.)	1.90@	4.25
Iso-borneol	2.30@	
Iso-butyl Acetate	2.00@	2.65
Iso-butyl Benzoate	2.70@	3.10
Iso-butyl Salicylate	2.75@	5.50
Iso-eugenol	2.80@	3.50
Iso-safrol	2.00@	
Linalool	3.00@	4.75
Linalyl Acetate 90%	3.00@	4.10
Linalyl Anthranilate	15.00@	
Linalyl Benzoate	10.50@	
Linalyl Formate	9.00@	12.00
Menthol, Japan	3.80@	4.00
Synthetic	2.50@	3.00
Methyl Acetophenone	1.31@	2.00
Methyl Anthranilate	2.20@	3.25
Methyl Benzoate	.75@	1.75
Methyl Cellulose	.70@	.75
Methyl Cinnamate	4.50@	7.25
Methyl Eugenol	3.50@	6.75
Methyl Heptenone	2.50@	4.50
Methyl Heptine Carbonate	25.00@	30.00
Methyl Iso-eugenol	6.25@	11.50
Methyl Octine Carbonate	26.00@	32.00
Methyl Paracresol	2.25@	5.00
Methyl Phenylacetate	1.60@	2.25
Methyl Salicylate	.35@	.40
Musk Ambrette	3.60@	4.00
Ketone	3.75@	4.10
Xylene	1.10@	1.40
Nerolin (ethyl ester)	1.35@	1.80
Nonyl Acetate	46.00@	48.00
Octyl Acetate	35.00@	40.00
Paracresol Acetate	3.60@	5.25
Paracresol Methyl Ether	2.50@	3.50
Paracresol Phenyl-acetate	5.00@	8.50
Phenylacetaldehyde 50%	2.10@	4.00
100%	4.00@	7.25
Phenylacetic acid	2.00@	3.75
Phenylethyl Acetate	2.45@	5.00
Phenylethyl Alcohol	2.30@	3.10
Phenylethyl Anthranilate	16.00@	

[Continued on p. 118]